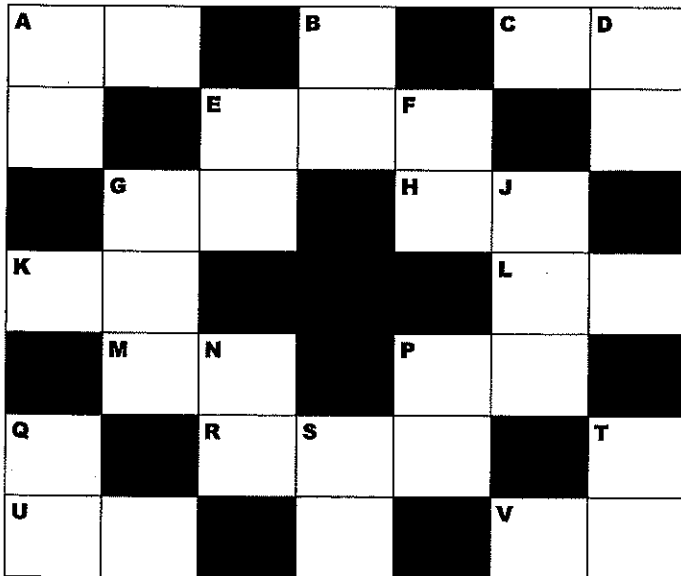


# CROSS-NUMBER PUZZLE 1



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A. The number of holes on the buttons



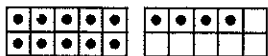
C. The number before 74

E. The number that reads three hundred seventy-eight

G. An even number

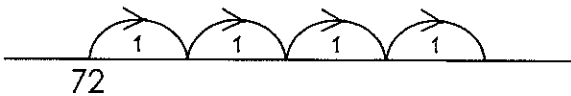
H. The number that is two more than 54

K. The number shown by the ten-frames



L.  $10 + 4$

M. The number reached on the last hop



P. The number that is one less than 86

R. A number with all digits the same

U. The next number in the pattern:

45, 46, 47, 48,

V. The number after 29

## DOWN:

A. The number shown by the tally



B. The number after 16

D. The number shown by the blocks



E.  $10 + 10 + 10$

F. An odd number

G. Choose the greatest number:

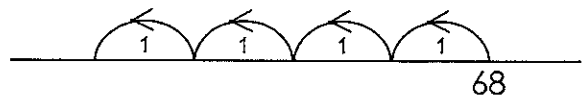
647, 747, 847, 547

J. A number greater than 600

N. The number that is two less than 63

P. The number before 82

Q. The number reached on the last hop

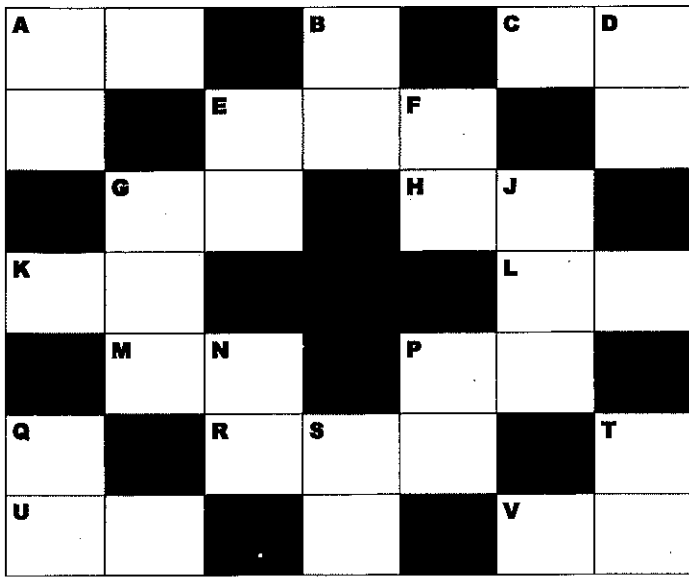


S. The number of beads



T.  $5 + 5$

## CROSS-NUMBER PUZZLE 2



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

### ACROSS:

A. The next number in the pattern:

31, 32, 33, 34,

C. The number that is two less than 13

E. A number with all digits the same

G. An odd number

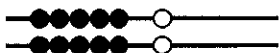
H. The number that is two more than 56

K. The number before 68

L. The number of beads



M. The number of beads



P. The number shown by the tally



R. Choose the greatest number:

246, 446, 346, 546

U. The number of holes on the buttons

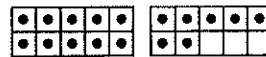


V. The number after 39

### DOWN:

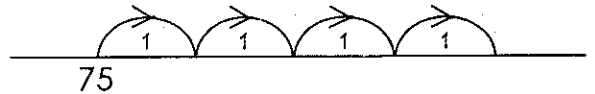
A. The number that is two less than 38

B. The number shown by the ten-frames



D.  $10 + 7$

E. The number reached on the last hop



F. A number less than 80

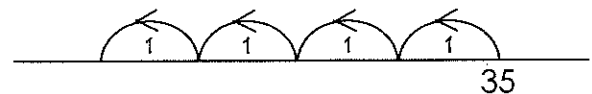
G. The number that reads five hundred seventy-one

J. A number between 800 and 900

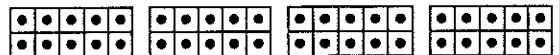
N. A number between 20 and 30

P. An even number

Q. The number reached on the last hop

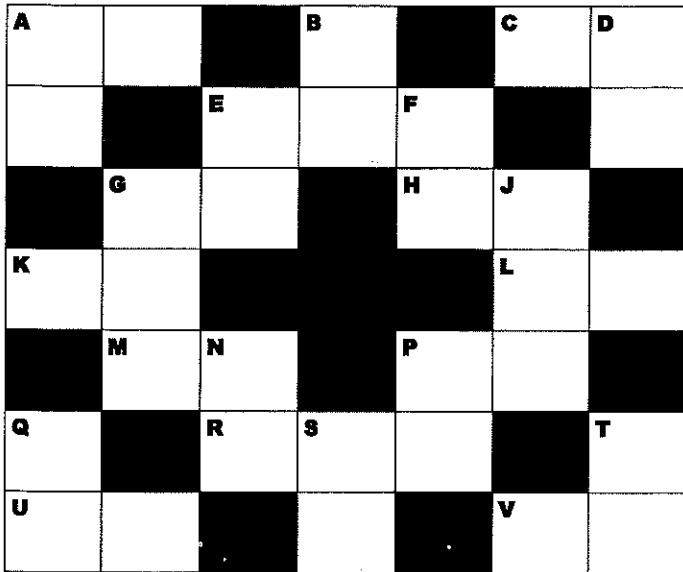


S. The number shown by the ten-frames



T.  $10 + 10 + 10 + 10$

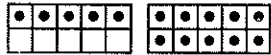
# CROSS-NUMBER PUZZLE 3



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A. The number shown by the ten-frames

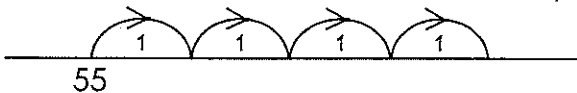


C.  $5 + 10$

E. The number that reads five hundred forty-eight

G. An even number

H. The number reached on the last hop



K. The number of holes on the buttons



L. The number that is two less than 98

M. A number between 20 and 30

P. The next number in the pattern:

85, 86, 87, 88,

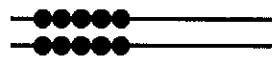
R. A number between 500 and 600

U. The number after 49

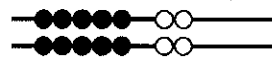
V. The number that is one less than 77

## DOWN:

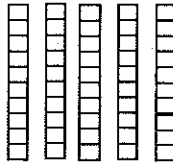
A. The number of beads



B. The number of beads



D. The number shown by the blocks



E.  $10 + 10 + 10 + 10 + 10$

F. An odd number

G. Choose the greatest number:  
562, 362, 762, 162

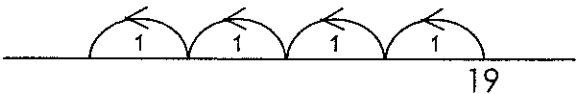
J. A number with all digits the same

N. The number shown by the tally



P. The number that is two more than 84

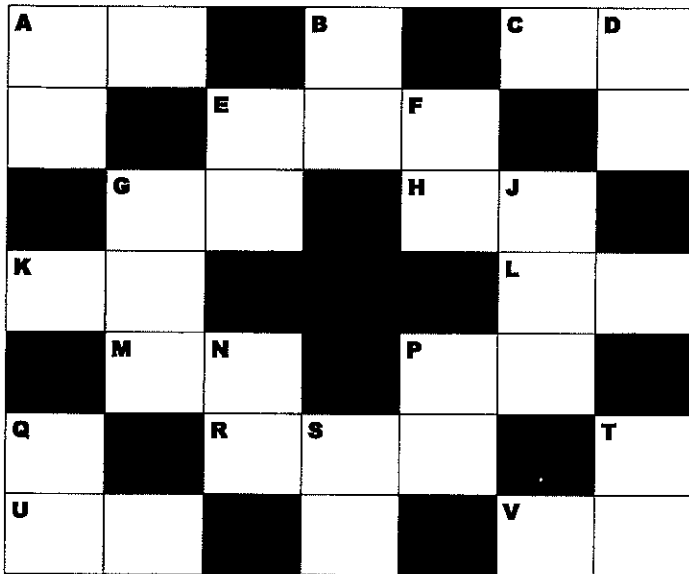
Q. The number reached on the last hop



S.  $6 + 6$

T. The number before 47

# CROSS-NUMBER PUZZLE 4

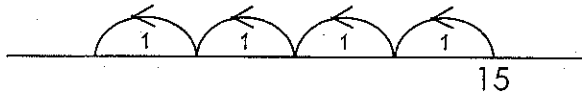


Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A. The number after 26

C. The number reached on the last hop



E. Choose the greatest number:  
384, 784, 184, 584

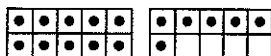
G.  $6 + 6$

H. An odd number

K. The next number in the pattern:  
64, 65, 66, 67,

L.  $10 + 6$

M. The number shown by the ten-frames



P. An even number

R. A number greater than 300

U.  $7 + 7$

V. The number that is two more than 58

## DOWN:

A. The number of beads



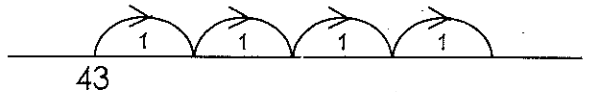
B. The number of beads



D.  $9 + 9$

E. A number between 70 and 80

F. The number reached on the last hop



G. A number less than 200

J. The number that reads five hundred fourteen

N. The number that is two less than 65

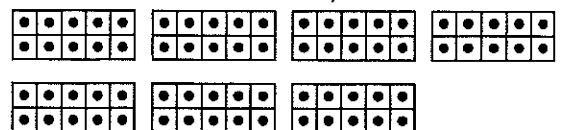
P. The number of holes on the buttons



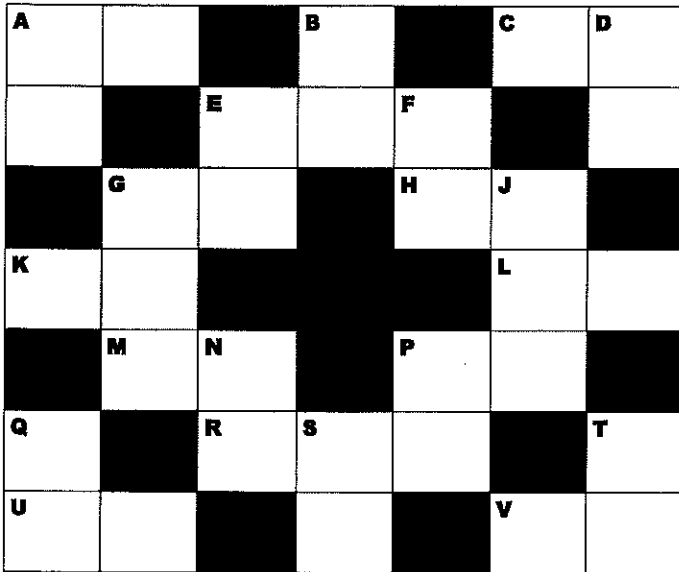
Q. The number that is two less than 93

S.  $10 + 10 + 10 + 10 + 10 + 10 + 10$

T. The number shown by the ten-frames

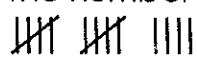
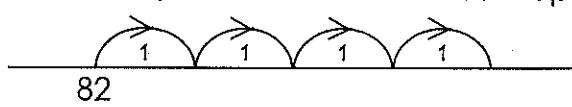
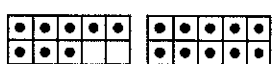


# CROSS-NUMBER PUZZLE 5



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

### ACROSS:

- A. The number shown by the tally  

  
- C. The next number in the pattern:  
 45, 46, 47, 48,
  
- E. A number with all digits the same
  
- G. The number that is two more than 68
  
- H. An even number
  
- K. The number reached on the last hop  

  
- L.  $8 + 10$
  
- M. The number shown by the ten-frames  

  
- P. An odd number
  
- R. Choose the greatest number:  
 426, 726, 626, 526

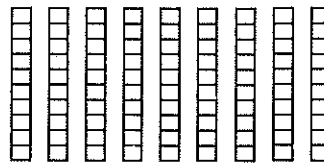
U. The number after 64

V.  $7 + 7$

### DOWN:

- A. The number that is two less than 14
  
- B. The number that is two more than 57
  
- D.  $10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10$

E. The number shown by the blocks



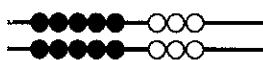
F. The number before 94

G. A number between 700 and 800

J. The number that reads six hundred thirteen

N. A number between 80 and 90

P. The number of beads

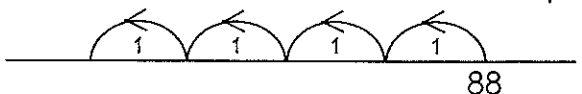


Q.  $8 + 8$

S. The number of holes on the buttons



T. The number reached on the last hop



## OVERVIEW: PUZZLE 6

Puzzles 6-10 are the second group of puzzles in *Cross-Number Discovery Puzzles 2*. The following number concepts, strategies and skills are included in this group of five puzzles. The outcomes are listed below as they appear in Puzzle 6.

### ACROSS:

**A. Basic addition facts – doubles**

**C. Saying two numbers before a given number**

**G. Saying two numbers after a given number, to the decade**

**K. Building numbers 11 – 20**

Encourage children to explain how they answered this question.

**L. Recognizing patterns that increase by 1**

**P. Counting by fives and ones, up to 25**

**R. Naming 3-digit numerals**

**U. Counting-on with the empty number line, over the decade**

**V. Counting-on, over the decade**

In this group of puzzles, children are required to count over the decade.

### DOWN:

**A. Basic addition facts – doubles**

**B. Saying the number after a given number**

**D. Incrementing on the decade, by tens**

**E. Decrementing on the decade, by tens**

Check whether children are able to count back by tens.

**F. Counting by twos, up to 30**

**J. Ordering 3-digit numerals**

**N. Counting-back with the empty number line**

**Q. Basic addition facts – doubles**

**S. Counting by tens**

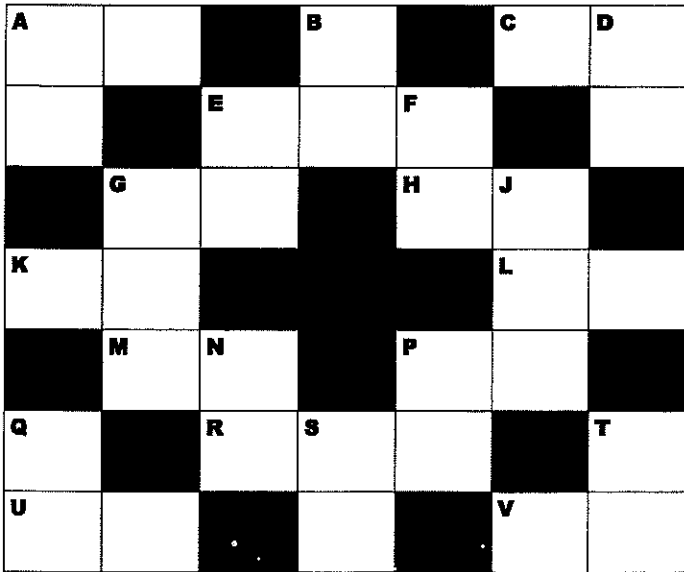
**T. Counting by tens and ones**

Check whether children can count by tens and ones. *Cross-Number Discovery Puzzles 2* supports with developing the place value relationship of tens and ones.

Two checklists of these outcomes are given at the end of the puzzles. The first checklist charts the progress of students as they work through the questions in Puzzle 10. The second checklist cross-references the questions in Puzzle 10 to the outcomes in *Teaching Number: Advancing Children's Skills and Strategies*, 2<sup>nd</sup> edition. This book addresses any gaps in students' understanding of number. As well, supplementary activity sheets and card games by author Celia Baron are available.

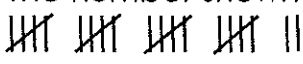
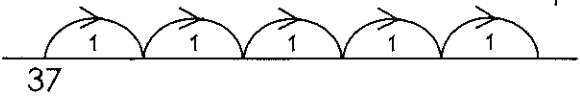
*Cross-Number Discovery Puzzles 2* focuses on the basic addition facts. These facts are introduced in a logical rather than a numerical order. Puzzles 6-10 provide more practice with the addition doubles that were introduced in Puzzles 1-5.

# CROSS-NUMBER PUZZLE 6


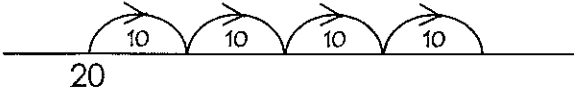
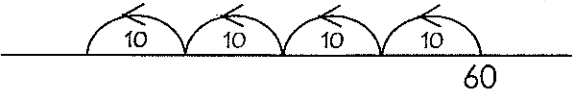
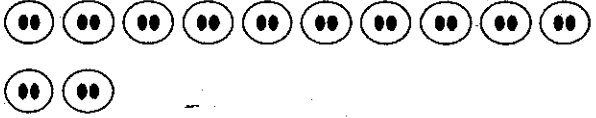
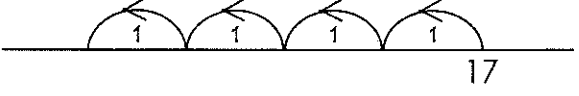
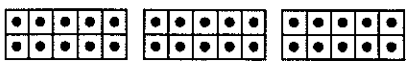
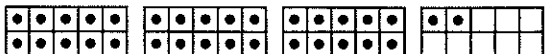


Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

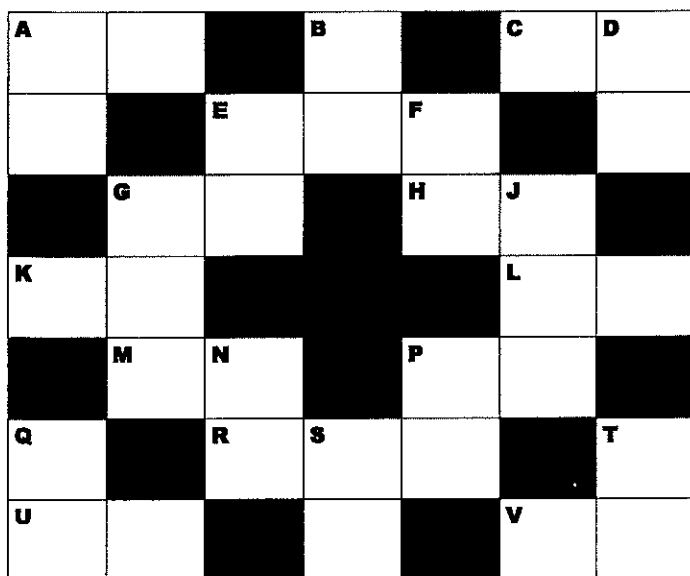
## ACROSS:

- A.  $8 + 8$
- C. The number that is two less than 98
- E. A number between 200 and 300
- G. The number that is two more than 48
- H. An odd number
- K.  $10 + 5$
- L. The next number in the pattern:  
57, 58, 59, 60,
- M. A number greater than 50
- P. The number shown by the tally  

- R. The number that reads three hundred thirty-six
- U. The number reached on the last hop  

- V.  $37 + 5$

## DOWN:

- A. The number of beads  

- B. The number after 38
- D. The number reached on the last hop  

- E. The number reached on the last hop  

- F. The number of holes on the buttons  

- G. A number with all digits the same
- J. Choose the least number:  
765, 767, 762, 764
- N. The number reached on the last hop  

- P. An even number
- Q.  $7 + 7$
- S. The number shown by the ten-frames  

- T. The number shown by the ten-frames  


# CROSS-NUMBER PUZZLE 7



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $9 + 9$

C.  $5 + 10$

E. Choose the least number:  
568, 588, 598, 578

G. An even number

H. The number before 75

K.  $8 + 8$

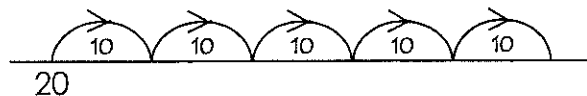
L. The number that is two more than 47

M. A number between 80 and 90

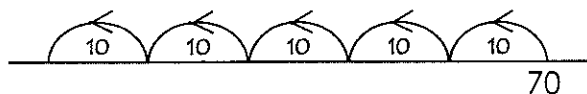
P. The number that is two less than 56

R. A number between 300 and 400

U. The number reached on the last hop



V. The number reached on the last hop



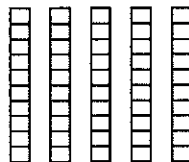
## DOWN:

A.  $6 + 6$

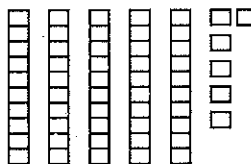
B. The number of holes on the buttons



D. The number shown by the blocks



E. The number shown by the blocks

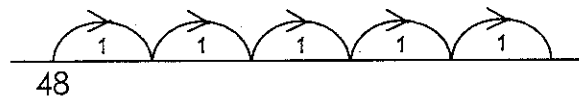


F. A number greater than 80

G. The number that reads nine hundred sixty-eight

J. A number with all digits the same

N. The number reached on the last hop

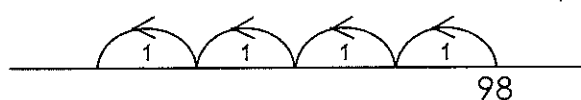


P.  $48 + 5$

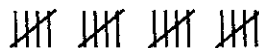
Q. The next number in the pattern:

63, 64, 65, 66,

S. The number reached on the last hop

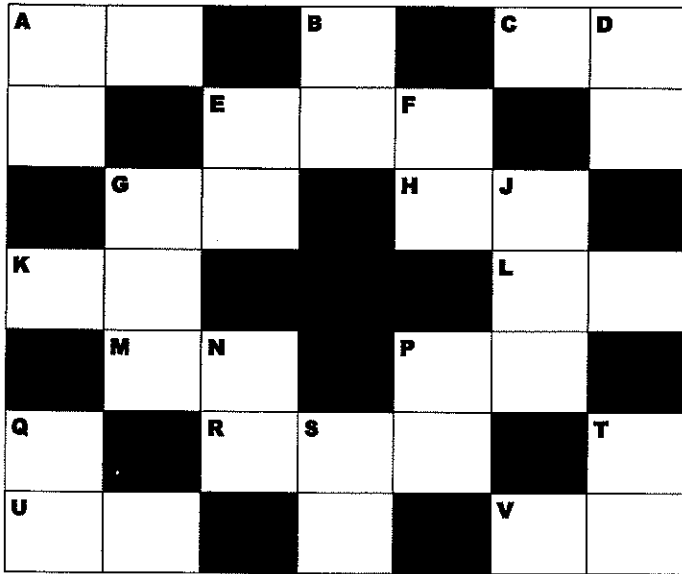


T. The number shown by the tally



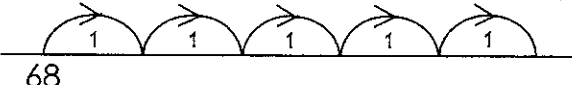
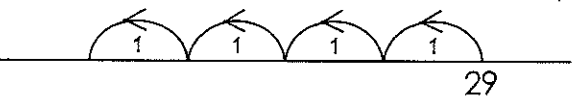


# CROSS-NUMBER PUZZLE 8

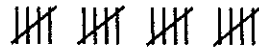


Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

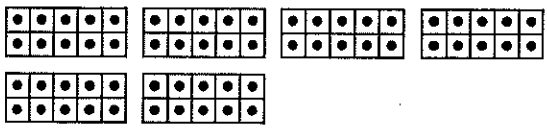
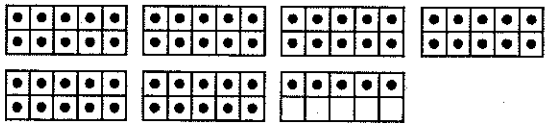
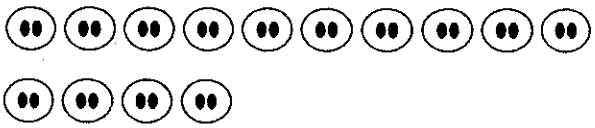
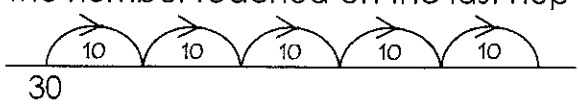
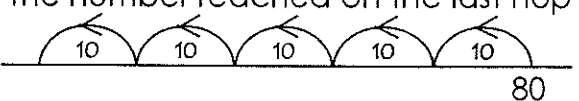
## ACROSS:

- A. The next number in the pattern:  
77, 78, 79, 80,
  
- C. The number that is two less than 18
  
- E. Choose the least number:  
695, 697, 696, 694
  
- G. An odd number
  
- H.  $9 + 9$
  
- K. The number that is two more than 57
  
- L.  $68 + 5$
  
- M. The number reached on the last hop  

  
- P. The number reached on the last hop  

  
- R. A number with all digits the same
  
- U. The number after 59

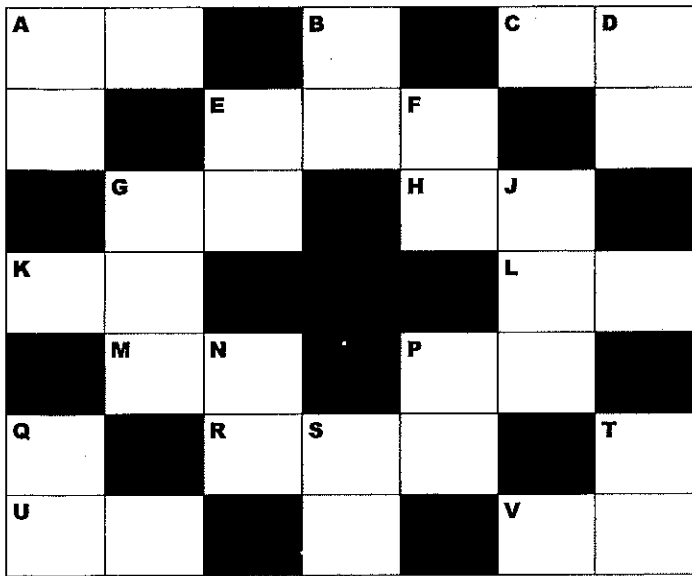
V. The number shown by the tally



## DOWN:

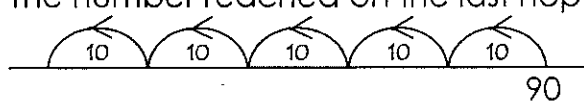
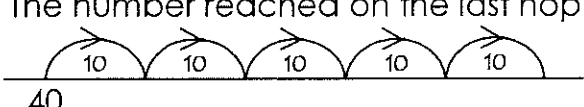
- A. The number that is two less than 89
  
- B.  $10 + 9$
  
- D. The number shown by the ten-frames  

  
- E. The number shown by the ten-frames  

  
- F. An odd number
  
- G. The number that reads four hundred ninety-seven
  
- J. A number between 800 and 900
  
- N. A number less than 40
  
- P. The number of holes on the buttons  

  
- Q.  $8 + 8$
  
- S. The number reached on the last hop  

  
- T. The number reached on the last hop  


# CROSS-NUMBER PUZZLE 9

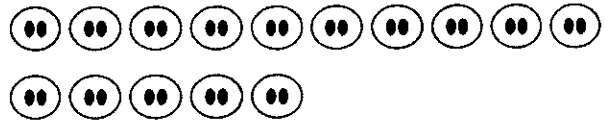
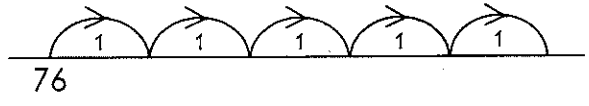
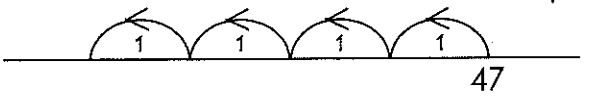
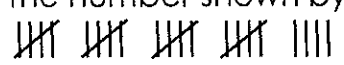
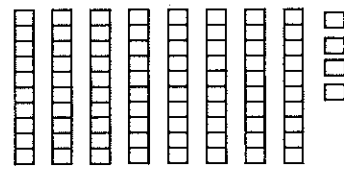
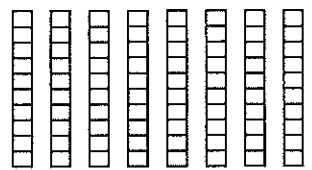


Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

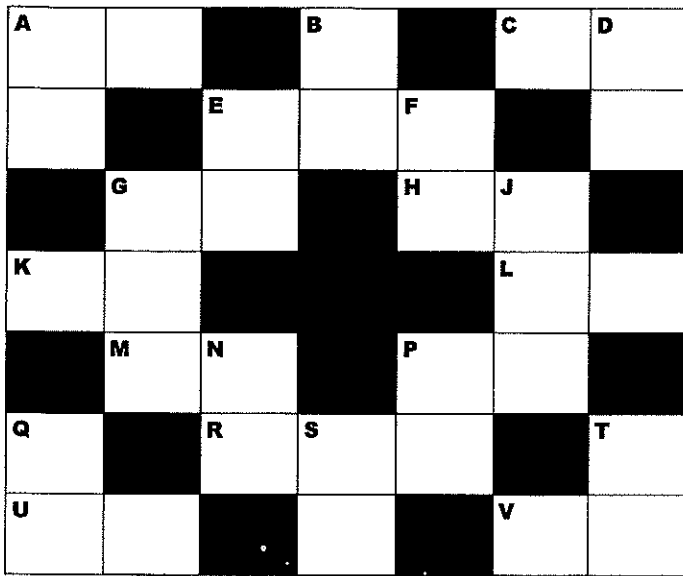
## ACROSS:

- A. The number before 37
- C.  $9 + 9$
- E. Choose the least number:  
458, 438, 418, 478
- G. An odd number
- H. The number that is two more than 65
- K. The number that is two less than 53
- L. The number after 89
- M.  $6 + 6$
- P. A number between 10 and 20
- R. A number greater than 400
- U. The number reached on the last hop  

- V. The number reached on the last hop  


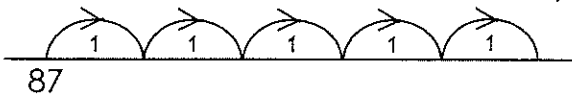
## DOWN:

- A. The number of holes on the buttons  

- B.  $76 + 5$
- D. The number reached on the last hop  

- E. The number reached on the last hop  

- F. An even number
- G. A number with all digits the same
- J. The number that reads seven hundred ninety-seven
- N. The number shown by the tally  

- P.  $6 + 10$
- Q. The number shown by the blocks  

- S. The number shown by the blocks  

- T. The next number in the pattern:  
56, 57, 58, 59,

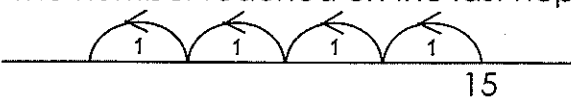
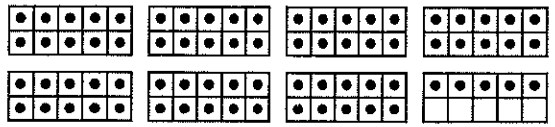
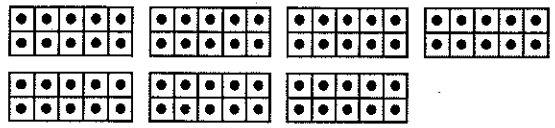
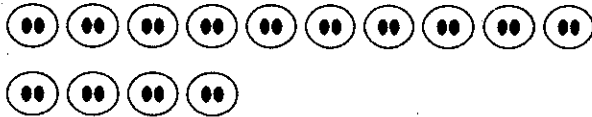

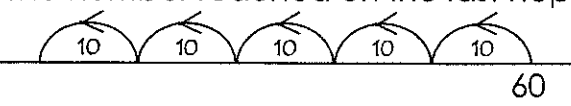
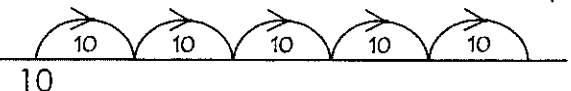
# CROSS-NUMBER PUZZLE 10



## ACROSS:

- A.  $10 + 8$
- C. The number that is two less than 59
- E. Choose the least number:  
792, 762, 782, 772
- G. An even number
- H. The number after 42
- K.  $9 + 9$
- L.  $87 + 5$
- M. The number reached on the last hop  

- P. A number greater than 20
- R. A number between 800 and 900
- U. The number that is two more than 39
- V. The next number in the pattern:  
66, 67, 68, 69,

## DOWN:

- A. The number reached on the last hop  

- B.  $8 + 8$
- D. The number shown by the ten-frames  

- E. The number shown by the ten-frames  

- F. A number less than 30
- G. The number that reads five hundred eighty-nine
- J. Choose the greatest number:  
395, 391, 393, 397
- N. The number of holes on the buttons  

- P. The number shown by the tally  

- Q.  $7 + 7$
- S. The number reached on the last hop  

- T. The number reached on the last hop  


# OVERVIEW: PUZZLE 11

Puzzles 11-15 are the third group of puzzles in *Cross-Number Discovery Puzzles 2*. The following number concepts, strategies and skills are included in this group of five puzzles. The outcomes are listed below as they appear in Puzzle 11.

## ACROSS:

- A. Basic addition facts – doubles
- C. Saying two numbers before a given number
- K. Basic addition facts – doubles
- L. Saying the number after a given number, to the decade
- M. Counting by fives and ones, up to 35
- P. Building numbers 11 - 20
- R. Naming 3-digit numerals
- U. Decrementing on the decade, by tens
- V. Counting-on, over the decade

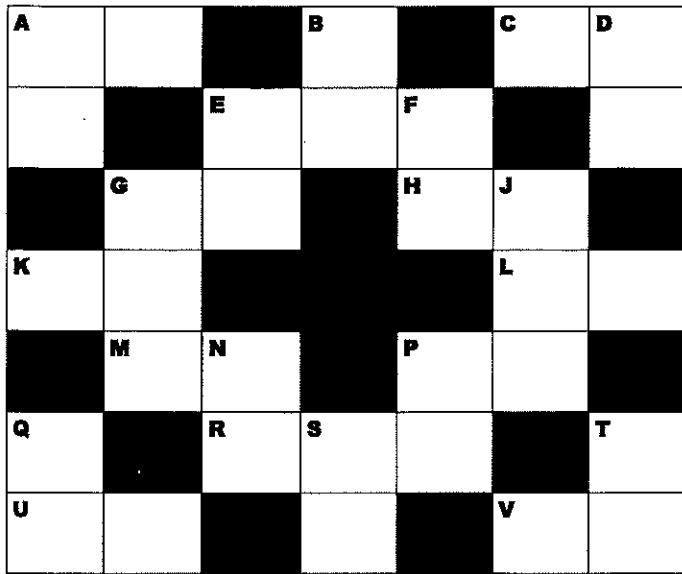
## DOWN:

- A. Basic addition facts – doubles
- B. Basic addition facts – near-doubles  
Children can use a fact they know to help them with one they do not yet know. The doubles can be used as 'helper facts' for the near-doubles.
- D. Counting-on with the empty number line, over the decade
- E. Counting-back with the empty number line, over the decade  
Children often have more difficulty with counting backwards over a decade than counting forwards over a decade.
- F. Recognizing patterns that decrease by 1  
This group of five puzzles introduces patterns that decrease as well as increase.
- J. Ordering 3-digit numerals
- Q. Counting by tens and ones
- S. Adding from a decade  
Check how children answer this question. Do they recognize that  $30 + 5 = 35$  or are they counting on 5 from 30 to reach 35?
- T. Counting by twos, up to 40

Two checklists of these outcomes are given at the end of the puzzles. The first checklist charts the progress of students as they work through the questions in Puzzle 15. The second checklist cross-references the questions in Puzzle 15 to the outcomes in *Teaching Number: Advancing Children's Skills and Strategies*, 2<sup>nd</sup> edition. This book addresses any gaps in students' understanding of number. As well, supplementary activity sheets and card games by author Celia Baron are available.

*Cross-Number Discovery Puzzles 2* focuses on the basic addition facts. These facts are introduced in a logical rather than a numerical order. Puzzles 11-15 introduce the near-double facts. Students needing more support with these facts can be referred to *Thinking Strategies Addition: Building Mastery of Addition Facts*. Level 4 of this program deals with these facts.

# CROSS-NUMBER PUZZLE 11



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $9 + 9$

C. The number that is two less than 65

E. A number between 200 and 300

G. An odd number

H. A number less than 40

K.  $6 + 6$

L. The number after 89

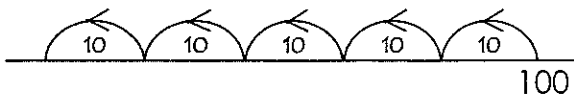
M. The number shown by the tally



P.  $10 + 7$

R. The number that reads seven hundred thirty-eight

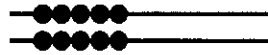
U. The number reached on the last hop



V.  $87 + 5$

## DOWN:

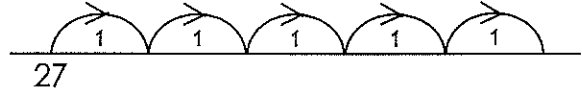
A. The number of beads



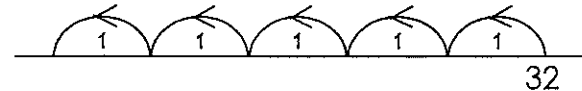
B. The number of beads



D. The number reached on the last hop



E. The number reached on the last hop



F. The next number in the pattern:

47, 46, 45, 44,

G. A number with all digits the same

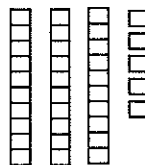
J. Choose the greatest number:

346, 275, 597, 481

N. A number greater than 80

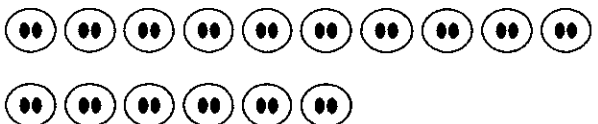
P. An even number

Q. The number shown by the blocks

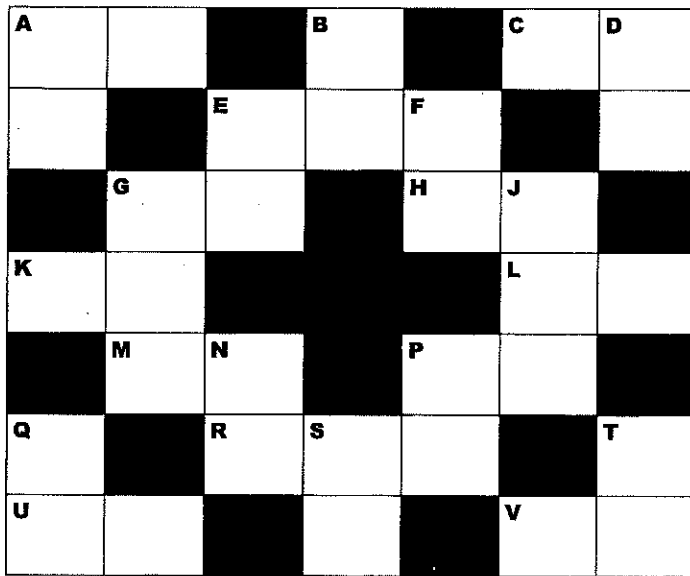


S.  $30 + 5$

T. The number of holes on the buttons




# CROSS-NUMBER PUZZLE 12



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A. The number that is two less than 29

C. The number shown by the tally  


E. Choose the greatest number:  
 685, 485, 585, 785

G. The next number in the pattern:  
 49, 48, 47, 46,

H.  $8 + 8$

K. The number of beads



L. The number of beads



M. A number between 50 and 60

P. An even number

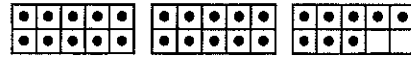
R. A number greater than 900

U.  $38 + 5$

V. The number that is two more than 59

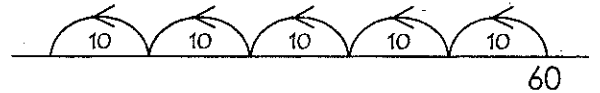
## DOWN:

A. The number shown by the ten-frames



B.  $20 + 8$

D. The number reached on the last hop



E. An odd number

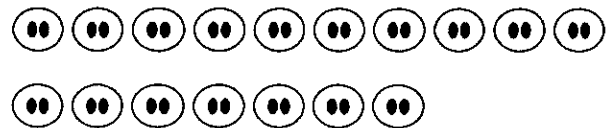
F. A number between 50 and 60

G. Choose the least number:  
 425, 519, 643, 782

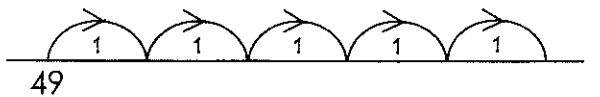
J. The number that reads six hundred eighteen

N.  $9 + 10$

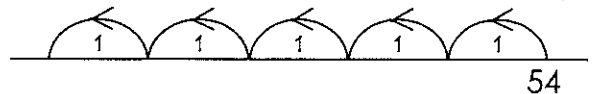
P. The number of holes on the buttons



Q. The number reached on the last hop

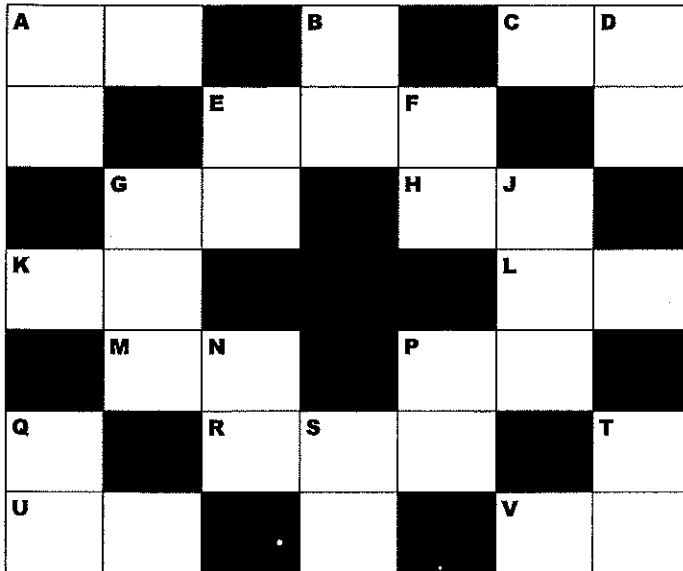


S. The number reached on the last hop



T.  $5 + 6$

# CROSS-NUMBER PUZZLE 13



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $8 + 8$

C. The number shown by the tally

E. Choose the greatest number:  
 549, 562, 557, 538

G. An even number

H. The number that is two less than 88

K.  $7 + 7$

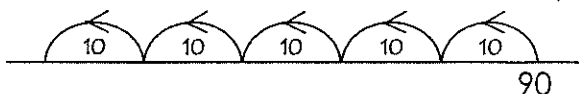
L.  $7 + 8$

M. A number less than 40

P. An odd number

R. A number with all digits the same

U. The number reached on the last hop

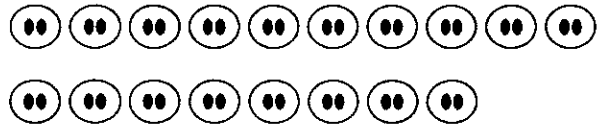


V. The number that is two more than 89

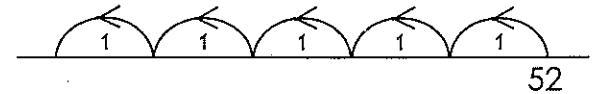
## DOWN:

A.  $10 + 8$

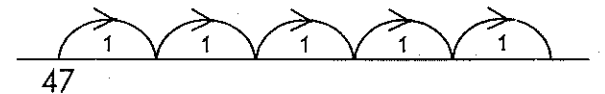
B. The number of holes on the buttons



D. The number reached on the last hop



E. The number reached on the last hop



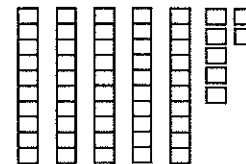
F. A number between 20 and 30

G. Choose the least number:  
 873, 853, 863, 843

J. The number that reads six hundred nineteen

N.  $50 + 7$

P. The number shown by the blocks

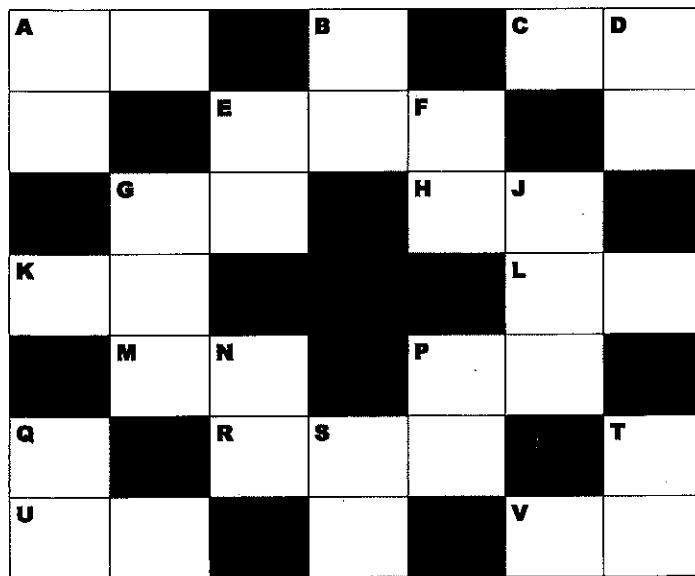


Q.  $89 + 5$

S. The next number in the pattern:  
 82, 81, 80, 79,

T.  $6 + 5$

# CROSS-NUMBER PUZZLE 14



Cross-Number Discovery Puzzles 2 - © Cella Baron 2009

## ACROSS:

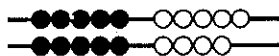
A. The number that is two less than 49

C.  $7 + 6$

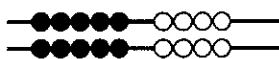
E. A number with all digits the same

G. The number before 77

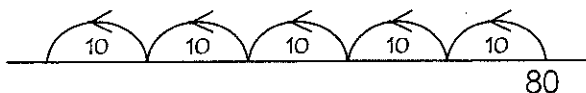
H. The number of beads



K. The number of beads



L. The number reached on the last hop



M.  $87 + 5$

P. A number less than 20

R. The number that reads nine hundred seventy-six

U. The number after 79

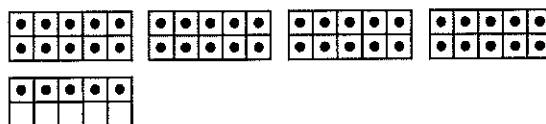
V. The next number in the pattern:

52, 51, 50, 49,

## DOWN:

A.  $40 + 5$

B. The number shown by the ten-frames



D. The number shown by the tally



E. An even number

F. The number that is two more than 49

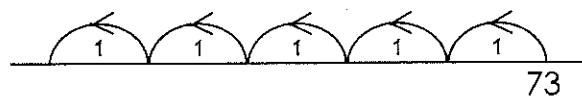
G. A number between 700 and 800

J. Choose the greatest number:  
612, 935, 786, 841

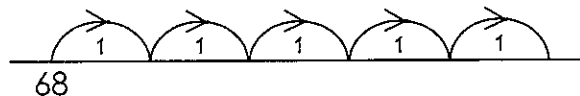
N. An odd number

P.  $6 + 10$

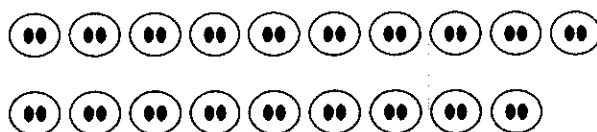
Q. The number reached on the last hop



S. The number reached on the last hop

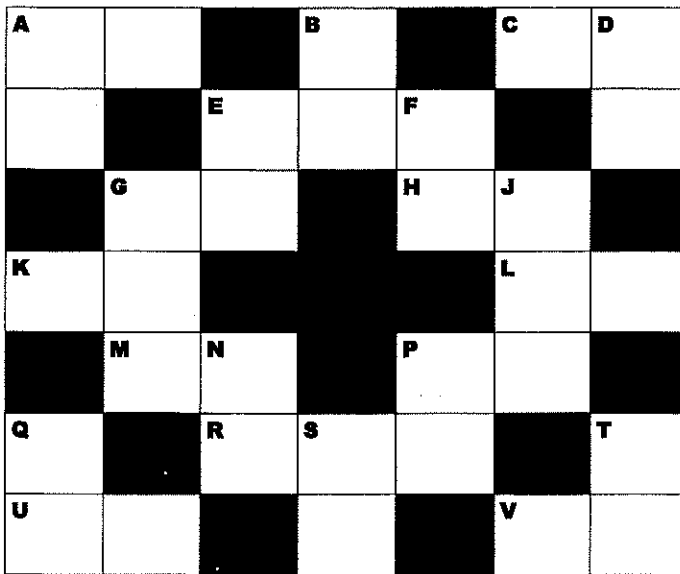


T. The number of holes on the buttons





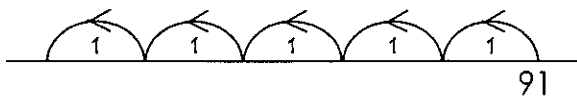
# CROSS-NUMBER PUZZLE 15



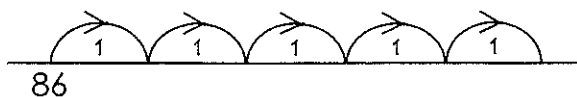
Cross-Number Discovery Puzzles 2 - © Cella Baron 2009

## ACROSS:

- A. The number that is two less than 48
- C.  $16 + 5$
- E. A number with all digits the same
- G. An even number
- H.  $8 + 7$
- K.  $7 + 7$
- L. The number that is two more than 78
- M. A number between 50 and 60
- P. An odd number
- R. A number greater than 700
- U. The number reached on the last hop



- V. The number reached on the last hop

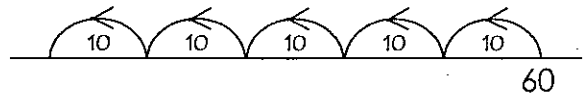


## DOWN:

- A. The number of holes on the buttons

- B.  $10 + 7$

- D. The number reached on the last hop



- E. The next number in the pattern:  
80, 79, 78, 77,

- F. An odd number

- G. Choose the least number:  
482, 345, 592, 613

- J. The number that reads five hundred eighty-nine

- N.  $8 + 9$

- P. The number shown by the tally

- Q.  $40 + 8$

- S. The number shown by the blocks

- T. The number that is two less than 63

# OVERVIEW: PUZZLE 16

Puzzles 16-20 are the fourth group of puzzles in *Cross-Number Discovery Puzzles 2*. The following number concepts, strategies and skills are included in this group of five puzzles. The outcomes are listed below as they appear in Puzzle 16.

## ACROSS:

**A. Basic addition facts – near-doubles**

**C. Saying two numbers after a given number, over the decade**

**H. Building numbers 11 - 20**

**K. Counting-back with the empty number line, over the decade**

**L. Counting-back, over the decade**

In this group of puzzles, children count backwards over the decade.

**P. Counting by fives and ones, up to 50**

**R. Ordering 3-digit numerals**

**U. Counting by tens**

**V. Incrementing on the decade, by tens**

In this group of puzzles, ten-blocks are used to model incrementing on the decade, by tens.

## DOWN:

**A. Basic addition facts – near-doubles**

**B. Recognizing patterns that decrease by 1**

**D. Basic addition facts – sums of 10**

**E. Basic addition facts – sums of 10**

As our number system is a decimal system, the facts with sums of 10 are an important group of facts and appear in subsequent puzzles.

**F. Counting-on, over the decade**

**G. Naming 3-digit numerals**

**N. Counting by twos, up to 40**

**Q. Adding from a decade**

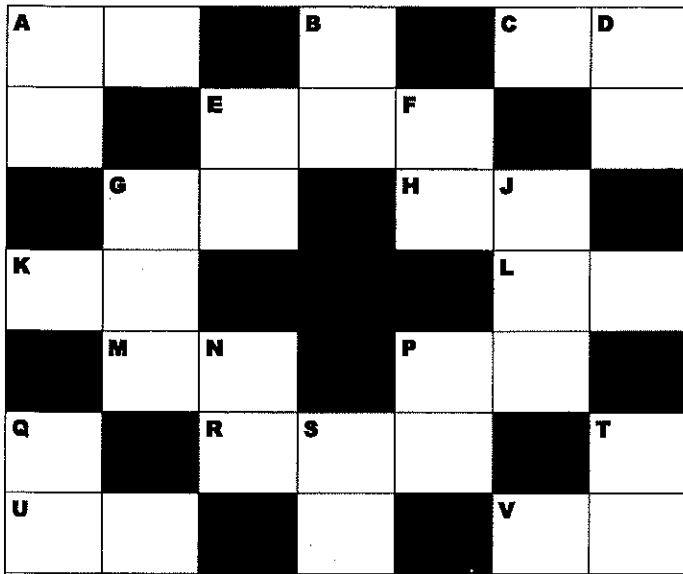
**S. Saying one number before a given number, to the decade**

**T. Decrementing on the decade, by tens**

Two checklists of these outcomes are given at the end of the puzzles. The first checklist charts the progress of students as they work through the questions in Puzzle 20. The second checklist cross-references the questions in Puzzle 20 to the outcomes in *Teaching Number: Advancing Children's Skills and Strategies*, 2<sup>nd</sup> edition. This book addresses any gaps in students' understanding of number. As well, supplementary activity sheets and card games by author Celia Baron are available.

*Cross-Number Discovery Puzzles 2* focuses on the basic addition facts. These facts are introduced in a logical rather than a numerical order. Puzzles 16-20 introduce the small but important group of basic addition facts with sums of 10. Students needing more support with these facts can be referred to *Thinking Strategies Addition: Building Mastery of Addition Facts*. Level 6 of this program deals with these facts.

# CROSS-NUMBER PUZZLE 16



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $7 + 8$

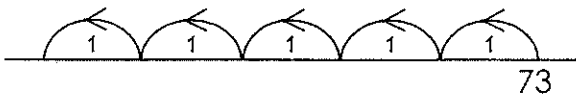
C. The number that is two more than 39

E. A number less than 200

G. An even number

H.  $10 + 5$

K. The number reached on the last hop



L.  $73 - 5$

M. A number between 70 and 80

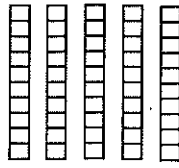
P. The number shown by the tally



R. Choose the least number:

264, 624, 246, 462

U. The number shown by the blocks



V.  $50 + 10 + 10$

## DOWN:

A.  $9 + 8$

B. The next number in the pattern:

83, 82, 81, 80,

D. The number of beads



E. The number of beads

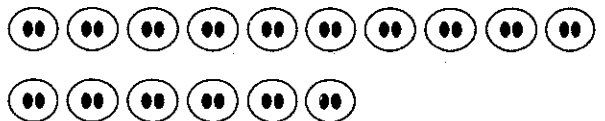


F.  $76 + 5$

G. The number that reads nine hundred eighty-seven

J. A number between 500 and 600

N. The number of holes on the buttons

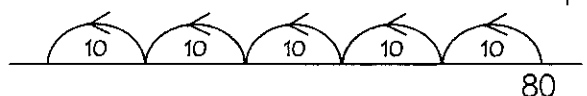


P. An even number

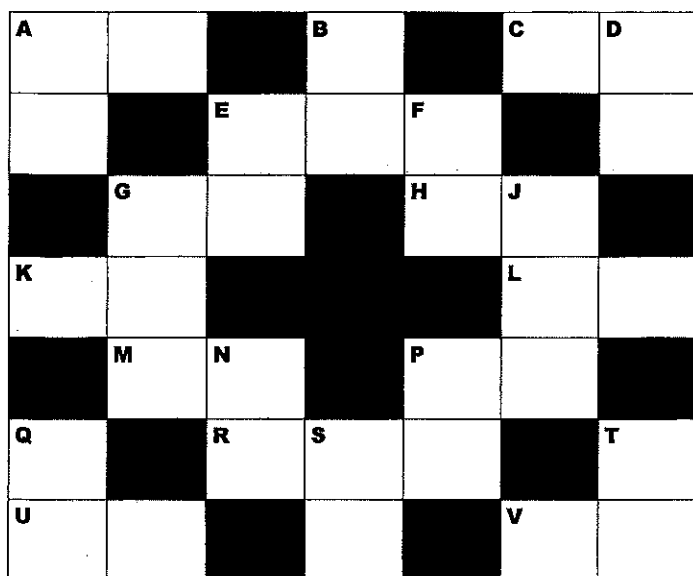
Q.  $30 + 5$

S. The number before 41

T. The number reached on the last hop




# CROSS-NUMBER PUZZLE 17



Cross-Number Discovery Puzzles 2 - © Cella Baron 2009

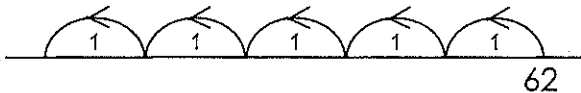
## ACROSS:

A. The number shown by the tally  


C. The number that is two less than 97

E. Choose the greatest number:  
 836, 386, 638, 863

G. An even number

H. The number reached on the last hop  


K.  $62 - 5$

L.  $30 + 8$

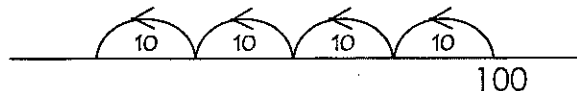
M. A number between 20 and 30

P. The next number in the pattern:  
 43, 42, 41, 40,

R. The number that reads eight hundred fifteen

U.  $8 + 9$

V. The number reached on the last hop

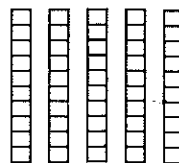


## DOWN:

A. The number before 41

B.  $10 + 6$

D. The number shown by the blocks



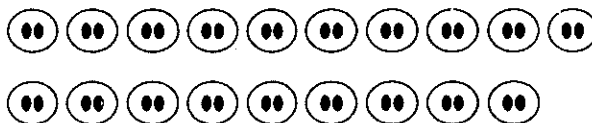
E.  $50 + 10 + 10 + 10$

F. An odd number

G. Choose the least number:  
 287, 282, 272, 277

J. A number between 700 and 800

N. The number of holes on the buttons



P. A number less than 40

Q.  $46 + 5$

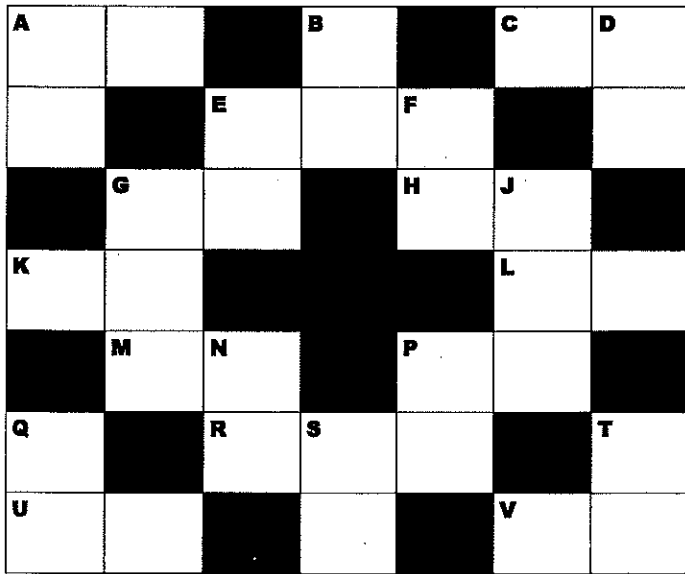
S. The number of beads



T. The number of beads



# CROSS-NUMBER PUZZLE 18



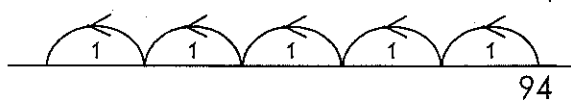
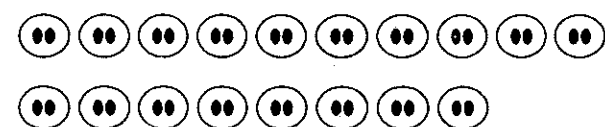
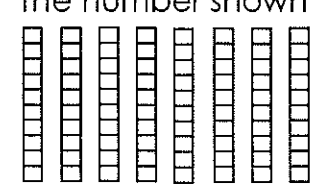
Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

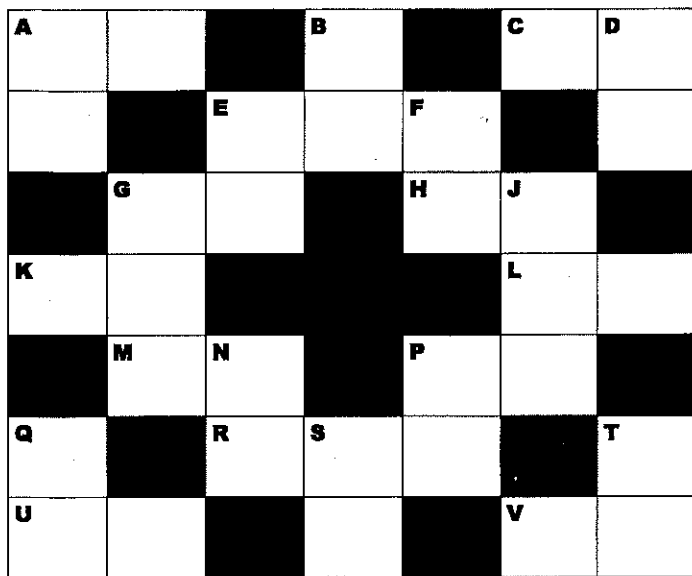
- A.  $79 + 5$
- C.  $6 + 5$
- E. Choose the least number:  
272, 191, 343, 414
- G. An even number
- H.  $9 + 8$
- K. The number that is two more than 93
- L. The next number in the pattern:  
53, 52, 51, 50,
- M. A number with both digits the same
- P.  $6 + 10$
- R. A number greater than 600
- U. The number that is two less than 78

V. The number before 91

## DOWN:

- A.  $94 - 5$
- B. The number reached on the last hop  

- D.  $4 + 6$
- E.  $5 + 5$
- F. A number between 10 and 20
- G. The number that reads eight hundred fifty-three
- J. A number between 700 and 800
- N. The number of holes on the buttons  

- P.  $7 + 8$
- Q.  $40 + 7$
- S. The number shown by the blocks  

- T.  $80 - 10 - 10$

# CROSS-NUMBER PUZZLE 19



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## ACROSS:

A.  $40 + 8$

C.  $6 + 7$

E. A number greater than 900

G. The number that is two more than 38

H. An odd number

K.  $82 - 5$

L.  $77 + 5$

M.  $7 + 8$

P. A number between 30 and 40

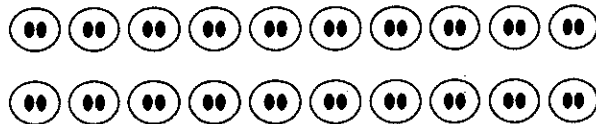
R. A number with all digits the same

U.  $3 + 7$

V.  $4 + 6$

## DOWN:

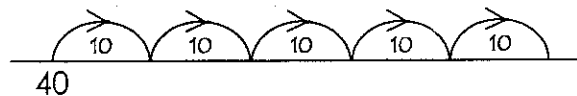
A. The number of holes on the buttons



B.  $10 + 7$

D. The number that is two less than 40

E. The number reached on the last hop



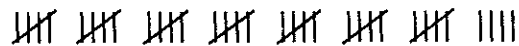
F. The number that is two less than 51

G. A number between 400 and 500

J. Choose the greatest number:  
285, 582, 258, 528

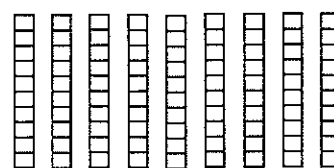
N. An odd number

P. The number shown by the tally



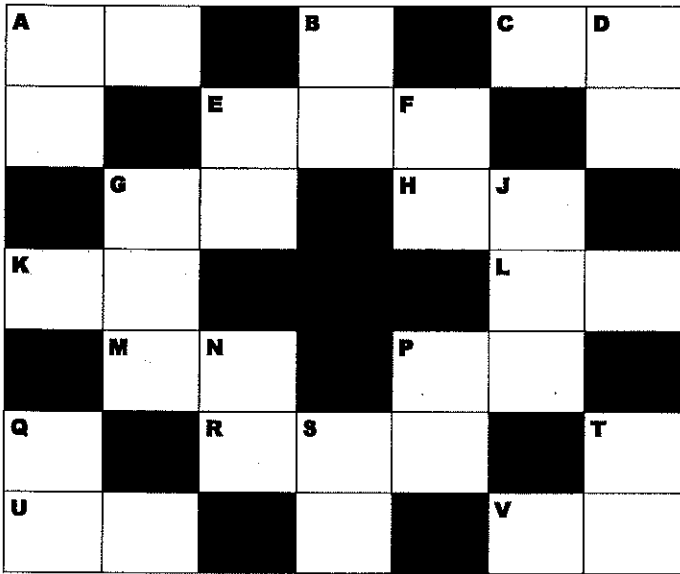
Q. The next number in the pattern:  
57, 58, 59, 60,

S. The number shown by the blocks



T.  $90 - 10 - 10 - 10$

## CROSS-NUMBER PUZZLE 20



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**ACROSS:**

A.  $6 + 7$

C. The number that is one less than 90

E. The number that reads three hundred seventy-nine

G. An even number

H.  $70 + 6$

K. The next number in the pattern:  
60, 59, 58, 57,

L. The number that is two less than 82

M. An even number

P.  $8 + 7$

R. A number between 300 and 400

U.  $6 + 4$

V.  $7 + 3$

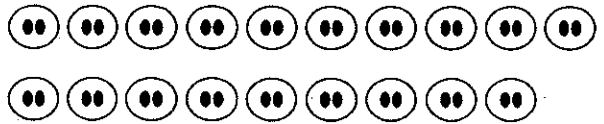
**DOWN:**

A.  $9 + 8$

B.  $92 - 5$

D.  $87 + 5$

E. The number of holes on the buttons



F. A number greater than 90

G. Choose the greatest number:  
961, 954, 951, 962

J. A number between 600 and 700

N. The number shown by the tally



P.  $10 + 8$

Q. The number that is two more than 89

S.  $70 - 10 - 10 - 10$

T.  $40 + 10 + 10 + 10$

## OVERVIEW: PUZZLE 21

Puzzles 21-25 are the fifth group of puzzles in *Cross-Number Discovery Puzzles 2*. The following number concepts, strategies and skills are included in this group of five puzzles. The outcomes are listed below as they appear in Puzzle 21.

### ACROSS:

- A. Recognizing patterns that increase by 5
- C. Saying two numbers after a given number, over the decade
- K. Basic addition facts – sums of 10
  - Building numbers 11 - 20
- L. Decrementing on the decade, by tens
- M. Counting-back, over the decade
- P. Incrementing by twos
- R. Ordering 3-digit numerals
- U. Adding from a decade
- V. Determining the number of dots on visible arrays

In this group of puzzles, children find the number of dots on visible arrays.

### DOWN:

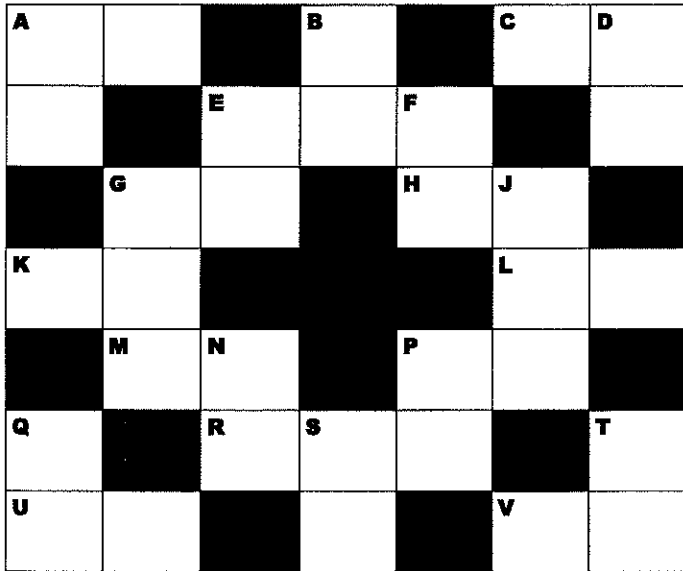
- A. Counting-on, over the decade
- B. Building numbers 11 – 20
- D. Basic addition facts – addends of 9
- E. Basic addition facts – addends of 9
  - Have children explain the strategy they use to complete these facts.
- F. Counting by threes, up to 24
- G. Naming 3-digit numerals
- J. Adding from a century and a decade
  - Arrow cards can be used to help with this outcome.
- Q. Basic addition facts – near-doubles
- S. Counting by tens and ones
- T. Incrementing off the decade, by tens
  - In this group of puzzles, blocks are used to model incrementing off the decade, by tens. Children find incrementing off the decade more challenging than incrementing on the decade.

Two checklists of these outcomes are given at the end of the puzzles. The first checklist charts the progress of students as they work through the questions in Puzzle 25. The second checklist cross-references the questions in Puzzle 25 to the outcomes in *Teaching Number: Advancing Children's Skills and Strategies*, 2<sup>nd</sup> edition. This book addresses any gaps in students' understanding of number. As well, supplementary activity sheets and card games by author Celia Baron are available.

*Cross-Number Discovery Puzzles 2* focuses on the basic addition facts. These facts are introduced in a logical rather than a numerical order. Puzzles 21-25 introduce the basic addition facts with an addend of 9. Students needing more support with these facts can be referred to *Thinking Strategies Addition: Building Mastery of Addition Facts*. Level 2 of this program deals with these facts.



# CROSS-NUMBER PUZZLE 21



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## ACROSS:

A. The next number in the pattern:

5, 10, 15, 20,

C. The number that is two more than 79

E. A number less than 200

G. An odd number

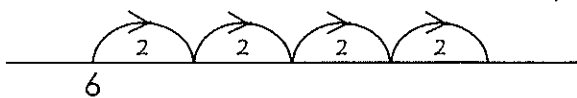
H. A number between 20 and 30

K.  $5 + 5 + 6$

L.  $90 - 10 - 10 - 10$

M.  $54 - 5$

P. The number reached on the last hop

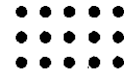


R. Choose the greatest number:

529, 925, 295, 592

U.  $30 + 6$

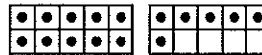
V. The number of dots in the array



## DOWN:

A.  $18 + 5$

B. The number shown by the ten-frames



D. The number shown by the ten-frames



E.  $9 + 6$

F. The number of holes on the buttons



G. The number that reads seven hundred sixty-four

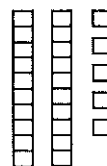
J.  $700 + 60 + 4$

N. A number with both digits the same

P. A number less than 20

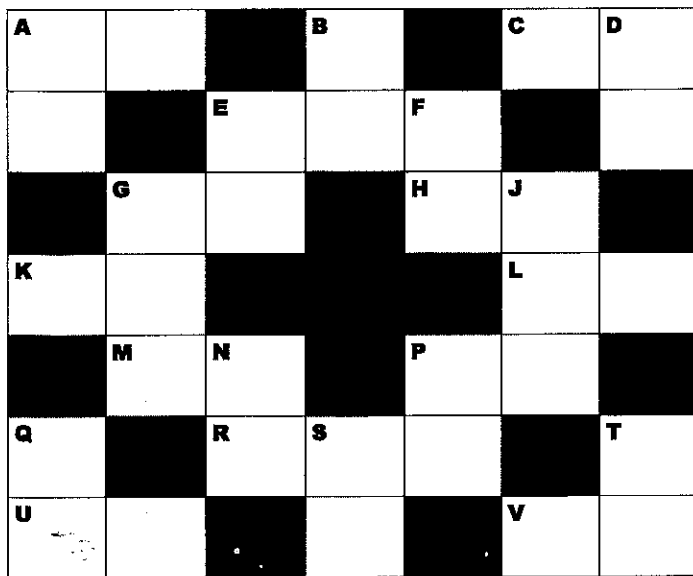
Q.  $6 + 7$

S. The number shown by the blocks



T.  $25 + 10$

# CROSS-NUMBER PUZZLE 22



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## ACROSS:

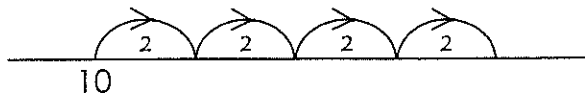
A.  $7 + 6$

C.  $29 + 5$

E. Choose the least number:  
768, 687, 867, 678

G. An even number

H. The number reached on the last hop



K.  $7 + 8$

L. The next number in the pattern:  
10, 20, 30, 40,

M. A number between 70 and 80

P. A number less than 20

U.  $90 - 10 - 10 - 10$

V. The number of dots in the array

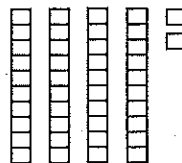


## DOWN:

A.  $4 + 6 + 9$

B.  $72 - 5$

D. The number shown by the blocks



E.  $42 + 10 + 10$

F. An odd number

G. The number that reads eight hundred fifty-seven

J.  $800 + 50 + 7$

N. The number that is two less than 50

P. The number shown by the ten-frames



Q.  $9 + 7$

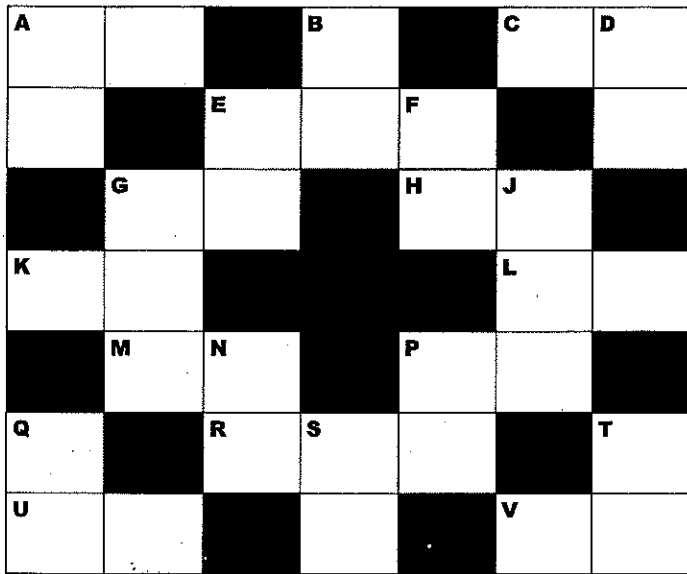
S. The number of holes on the buttons



T. The number shown by the tally



# CROSS-NUMBER PUZZLE 23



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A. 70 - 10 - 10 - 10 - 10

C. 6 + 5

E. Choose the least number:  
356, 536, 653, 365

G. 62 - 5

H. The number of holes on the buttons



K. 8 + 7

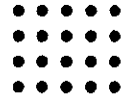
L. The number that is two less than 100

M. A number between 50 and 60

P. 40 + 6

R. 200 + 40 + 6

U. The number of dots in the array



V. 2 + 8 + 7

## DOWN:

A. The next number in the pattern:  
10, 15, 20, 25,

B. 6 + 9

D. 5 + 10

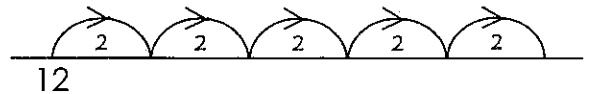
E. An odd number

F. A number between 60 and 70

G. A number with all digits the same

J. A number between 800 and 900

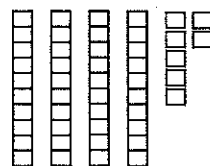
N. The number reached on the last hop



P. An even number

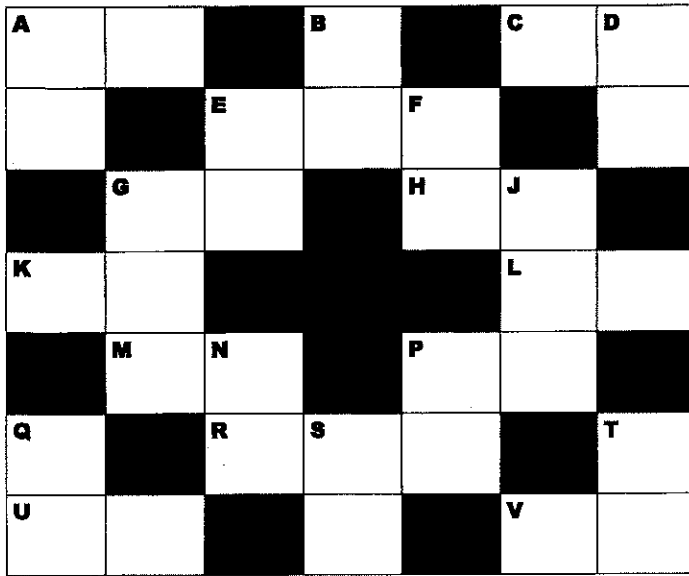
Q. 77 + 5

S. The number shown by the blocks



T. 47 + 10 + 10 + 10

# CROSS-NUMBER PUZZLE 24



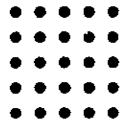
Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A. The next number in the pattern:

23, 22, 21, 20,

C. The number of dots in the array



E. A number with all digits the same

G.  $49 + 5$

H. The number that is two less than 91

K.  $4 + 6 + 3$

L.  $50 - 10 - 10 - 10 - 10$

M. An odd number

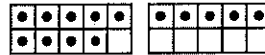
P. The number that is two more than 56

R. Choose the greatest number:

619, 916, 691, 196

U.  $9 + 5$

V. The number shown by the ten-frames

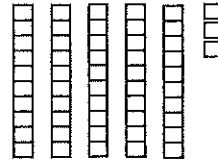


## DOWN:

A.  $8 + 9$

B.  $53 + 10 + 10 + 10 + 10$

D. The number shown by the blocks



E. A number between 30 and 40

F.  $30 + 8$

G.  $500 + 30 + 8$

J. A number between 900 and 1000

N.  $84 - 5$

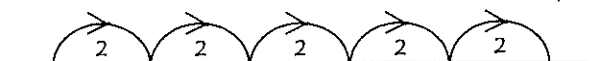
P. An even number

Q. The number of holes on the buttons



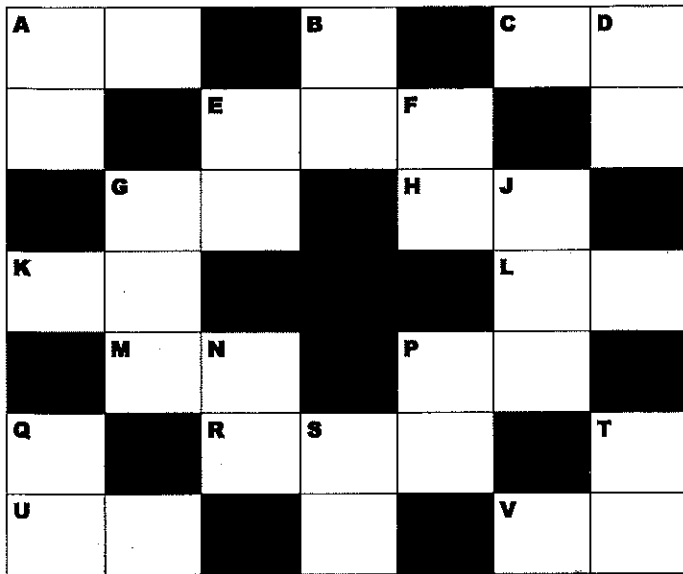
S.  $7 + 8$

T. The number reached on the last hop



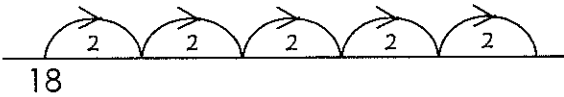
14

## CROSS-NUMBER PUZZLE 25




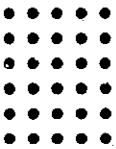
Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

**ACROSS:**

- A.  $70 - 5$
  
- C. The number that is two less than 54
  
- E. Choose the least number:  
387, 738, 837, 378
  
- G. An even number
  
- H.  $9 + 7$
  
- K.  $10 + 7$
  
- L.  $68 + 5$
  
- M. The number reached on the last hop  

  
- P. A number less than 20
  
- R. A number with all digits the same

- U. The number that is two less than 47
  
- V. The next number in the pattern:  
5, 7, 9, 11,

**DOWN:**

- A.  $100 - 10 - 10 - 10 - 10$
  
- B.  $9 + 8$
  
- D. The number of holes on the buttons  

  
- E. The number of dots in the array  

  
- F. A number between 80 and 90
  
- G.  $600 + 70 + 2$
  
- J. The number that reads six hundred seventy-two
  
- N. An odd number
  
- P.  $7 + 3 + 9$
  
- Q.  $54 + 10 + 10 + 10 + 10$
  
- S.  $50 + 10 + 10 + 10 + 10$
  
- T.  $7 + 6$

## OVERVIEW: PUZZLE 26

Puzzles 26-30 are the sixth group of puzzles in *Cross-Number Discovery Puzzles 2*. The following number concepts, strategies and skills are included in this group of five puzzles. The outcomes are listed below as they appear in Puzzle 26.

### ACROSS:

- A. Counting-on, over the decade
- C. Recognizing patterns that increase by 2
- E. Ordering 3-digit numerals
- H. Basic addition facts – sums of 10  
Building numbers 11 – 20
- K. Counting by threes, up to 30
- L. Saying two numbers before a given number, over the decade
- M. Counting by fives and ones, up to 50
- R. Saying one number after a given 3-digit number
- U. Counting by tens and ones
- V. Decrementing off the decade, by tens  
Decrementing off the decade by tens, is more challenging than decrementing on the decade by tens.

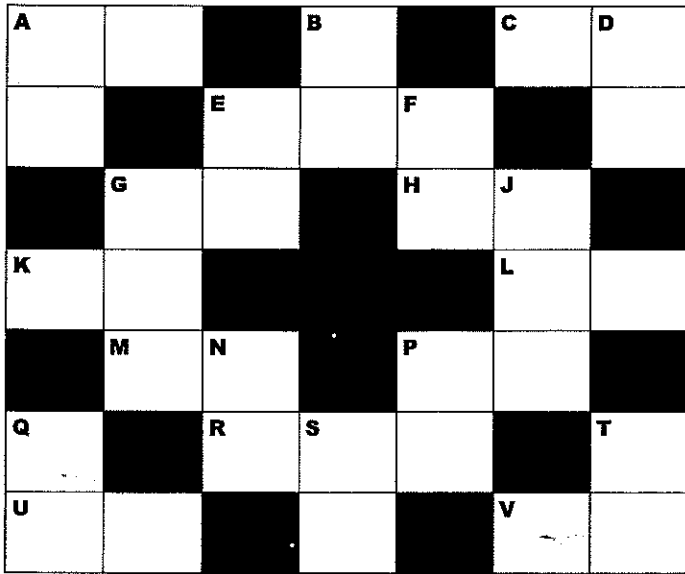
### DOWN:

- A. Determining the number of dots on visible arrays
- B. Incrementing by twos
- D. Basic addition facts – addends of 9
- E. Counting-back, over the decade
- G. Adding from a century and a decade
- J. Adding from a century  
Children find naming a 3-digit numeral with a '0' in the tens or ones place more challenging.
- P. Basic addition facts – addends of 9
- Q. Counting by tens and ones
- S. Subtracting to a decade  
Check how children answer this question. Do they recognize that  $34 - 4 = 30$  or are they counting back 4 from 34 to reach 30?
- T. Basic addition facts – near-doubles

Two checklists of these outcomes are given at the end of the puzzles. The first checklist charts the progress of students as they work through the questions in Puzzle 30. The second checklist cross-references the questions in Puzzle 30 to the outcomes in *Teaching Number: Advancing Children's Skills and Strategies*, 2<sup>nd</sup> edition. This book addresses any gaps in students' understanding of number. As well, supplementary activity sheets and card games by author Celia Baron are available.

*Cross-Number Discovery Puzzles 2* focuses on the basic addition facts. These facts are introduced in a logical rather than a numerical order. Puzzles 26-30 provide more practice with basic addition facts having addends of 9 that were introduced in the previous group of five puzzles.

# CROSS-NUMBER PUZZLE 26



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## ACROSS:

A.  $29 + 5$

C. The next number in the pattern:

13, 15, 17, 19,

E. Choose the least number:

982, 829, 928, 892

G. A number between 40 and 50

H.  $5 + 4 + 5$

K. The number of holes on the buttons



L. The number that is two less than 51

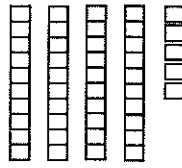
M. The number shown by the tally



P. An even number

R. The number that is one more than 234

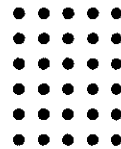
U. The number shown by the blocks



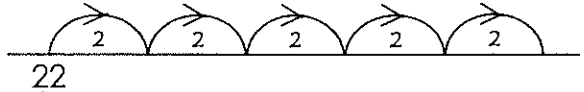
V.  $45 - 10 - 10$

## DOWN:

A. The number of dots in the array



B. The number reached on the last hop



D.  $8 + 9$

E.  $91 - 5$

F. An odd number

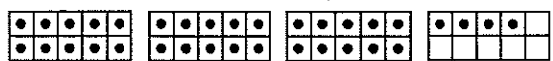
G.  $400 + 40 + 4$

J.  $400 + 40$

N. A number greater than 30

P.  $9 + 6$

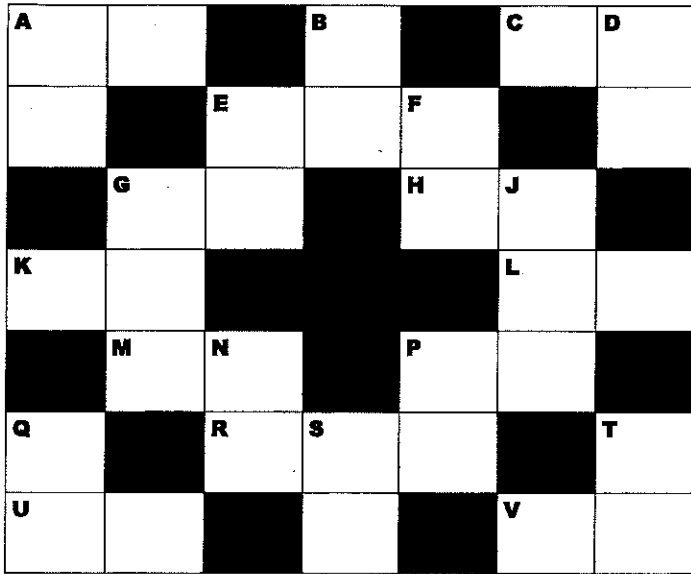
Q. The number shown by the ten-frames



S.  $34 - 4$

T.  $8 + 7$

# CROSS-NUMBER PUZZLE 27



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## ACROSS:

A.  $34 - 5$

C.  $9 + 6$

E. A number less than 400

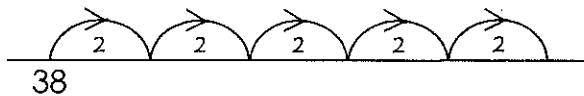
G. A number greater than 70

H.  $68 + 5$

K. The next number in the pattern:

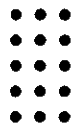
20, 25, 30, 35,

L. The number reached on the last hop



M. An odd number

P. The number of dots in the array



R. A number that reads five hundred thirty

U.  $38 + 10 + 10 + 10$

V.  $5 + 9 + 5$

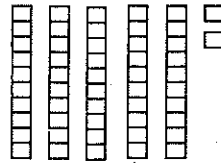
## DOWN:

A. The number of holes on the buttons



B.  $90 + 6$

D. The number shown by the blocks



E.  $52 - 10 - 10$

F.  $70 + 7$

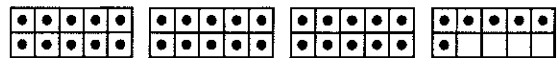
G.  $700 + 7$

J. A number between 300 and 400

N.  $8 + 7$

P. An even number

Q. The number shown by the ten-frames

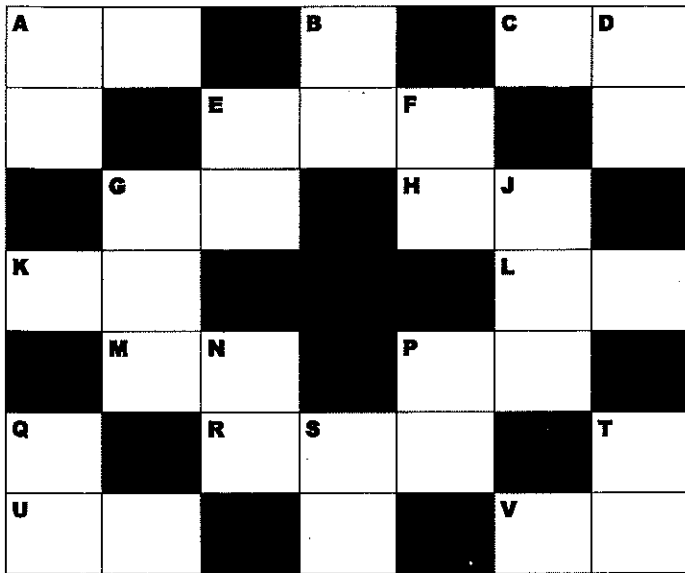


S.  $36 - 6$

T. The number that is two less than 81



# CROSS-NUMBER PUZZLE 28



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

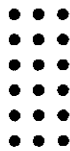
A. The number that is two less than 70

C.  $86 + 5$

E. A number with all digits the same

G. An odd number

H. The number of dots in the array



K. The next number in the pattern:

40, 45, 50, 55,

L. The number that is two more than 89

M. A number between 90 and 100

P. An even number

R. The number that reads six hundred eighty

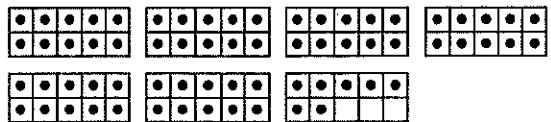
U.  $40 + 5$

V.  $9 + 8$

## DOWN:

A.  $67 - 7$

B. The number shown by the ten-frames



D.  $7 + 6 + 3$

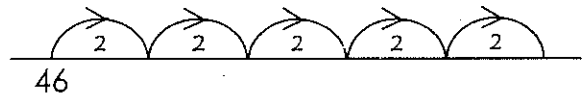
E.  $84 - 5$

F. An odd number

G.  $800 + 9$

J.  $800 + 90$

N. The number reached on the last hop



P. The number of holes on the buttons

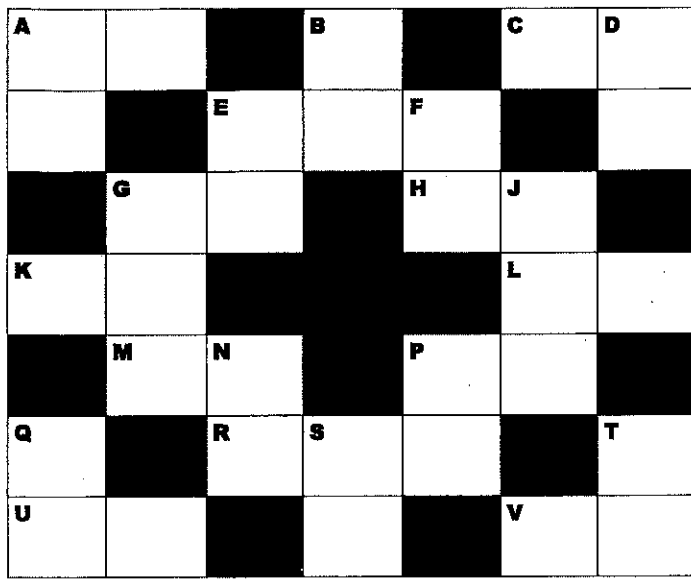


Q.  $5 + 9$

S.  $57 + 10 + 10 + 10$

T.  $87 - 10 - 10 - 10$

# CROSS-NUMBER PUZZLE 29



Cross-Number Discovery Puzzles 2 - © Cella Baron 2009

## ACROSS:

A.  $5 + 9$

C.  $8 + 7$

E. The number that reads five hundred eight

G. An even number

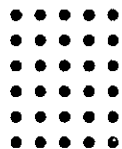
H. The number that is two less than 51

K.  $89 - 10 - 10 - 10$

L.  $80 - 10 - 10 - 10$

M. A number between 10 and 20

P. The number of dots in the array



R.  $700 + 70$

U.  $70 + 7$

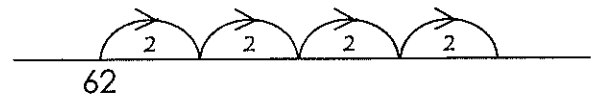
V. The next number in the pattern:

93, 92, 91, 90,

## DOWN:

A.  $4 + 9 + 6$

B. The number reached on the last hop



D.  $50 + 6$

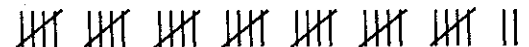
E.  $56 - 6$

F. A number greater than 80

G. The number that is two less than 293

J. A number between 900 and 1000

N. The number shown by the tally



P. An even number

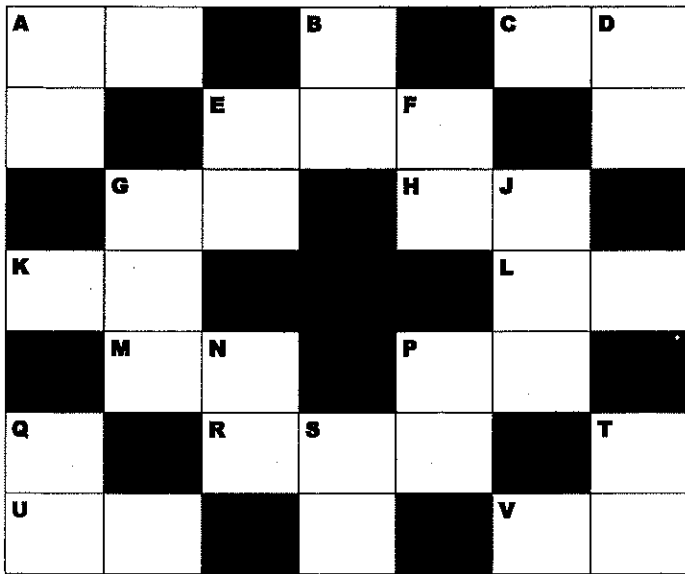
Q. The number of holes on the buttons



S.  $66 + 5$

T.  $24 - 5$

# CROSS-NUMBER PUZZLE 30



Cross-Number Discovery Puzzles 2 - © Cella Baron 2009

### ACROSS:

A. The number that is two less than 41

C.  $3 + 6 + 7$

E. Choose the greatest number:  
917, 791, 971, 719

G. The number of holes on the buttons

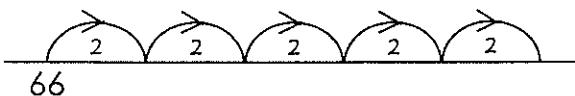


H. A number between 50 and 60

K.  $78 - 8$

L.  $70 + 8$

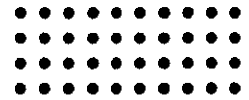
M. The number reached on the last hop



P. An even number

R. A number with all digits the same

U. The number of dots in the array



V.  $6 + 7$

### DOWN:

A. The next number in the pattern:  
23, 25, 27, 29,

B.  $67 - 10 - 10 - 10 - 10$

D.  $27 + 10 + 10 + 10 + 10$

E. An even number

F.  $9 + 6$

G.  $300 + 7$

J.  $300 + 70$

N. A number less than 70

P.  $43 - 5$

Q. The number that is two more than 52

S.  $78 + 5$

T. The number shown by the tally



## OVERVIEW: PUZZLE 31

Puzzles 31-35 are the seventh group of puzzles in *Cross-Number Discovery Puzzles 2*. The following number concepts, strategies and skills are included in this group of five puzzles. The outcomes are listed below as they appear in Puzzle 31.

### ACROSS:

- A. **Saying two numbers before a given number**
- C. **Recognizing patterns that increase by 3**
- H. **Counting by fours, up to 32**
- K. **Counting-on, over the decade**
- L. **Determining the number of dots in partially screened arrays**  
This group of puzzles introduces partially screened arrays.
- M. **Decrementing off the decade, by tens**
- P. **Combining pairs of numbers that add to 10, sum less than 30**
- R. **Ordering three-digit numerals**
- U. **Counting by tens and ones**
- V. **Place-value relationship of tens and ones**  
This group of puzzles continues to develop the place-value relationship of tens and ones.

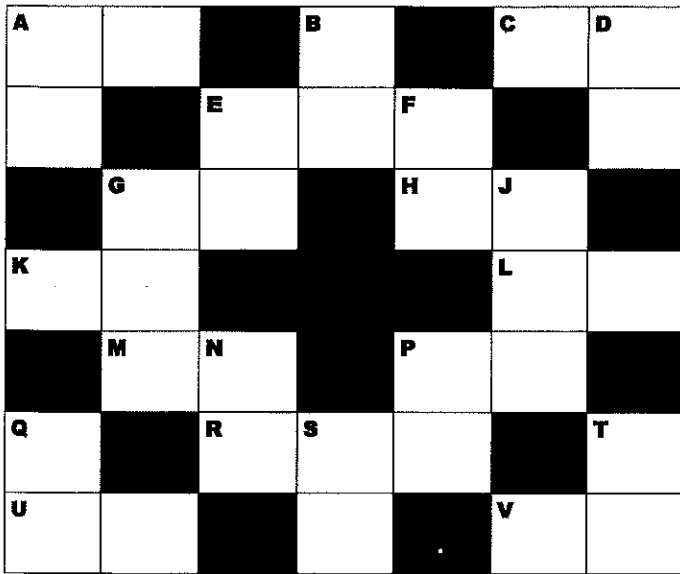
### DOWN:

- A. **Subtracting to a decade**
- B. **Counting by tens and ones**
- D. **Adding two 2-digit numbers without regrouping**  
Blocks are used to introduce incrementing by tens and ones.
- E. **Counting-back, over the decade**
- F. **Basic addition facts – remaining facts**
- G. **Saying the number after a given 3-digit number**
- Q. **Basic addition facts – addends of 9**
- S. **Incrementing by twos**
- T. **Decrementing by twos**  
This group of puzzles introduces decrementing by twos.

Two checklists of these outcomes are given at the end of the puzzles. The first checklist charts the progress of students as they work through the questions in Puzzle 35. The second checklist cross-references the questions in Puzzle 35 to the outcomes in *Teaching Number: Advancing Children's Skills and Strategies*, 2<sup>nd</sup> edition. This book addresses any gaps in students' understanding of number. As well, supplementary activity sheets and card games by author Celia Baron are available.

*Cross-Number Discovery Puzzles 2* focuses on the basic addition facts. These facts are introduced in a logical rather than a numerical order. Many of the basic addition facts have been introduced in previous puzzles. Puzzles 31-35 introduce the remaining addition facts. Students needing more support with these facts can be referred to *Thinking Strategies Addition: Building Mastery of Addition Facts*. Levels 5 and 6 of this program deal with these facts.

# CROSS-NUMBER PUZZLE 31



Cross-Number Discovery Puzzles 2 - © Celia Kraton 2009

## ACROSS:

A. The number that is two less than 100

C. The next number in the pattern:

3, 6, 9, 12,

E. A number greater than 800

G. An odd number

H. The number of holes on the buttons



K.  $67 + 5$

L. The number of dots shown and hidden in the array

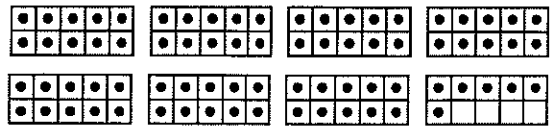


M.  $89 - 10 - 10 - 10$

P.  $5 + 5 + 7 + 5 + 5$

R. Choose the greatest number:  
909, 900, 902, 920

U. The number shown by the ten-frames

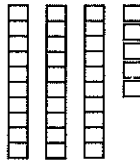


V. The number that means 7 tens and 6 ones

## DOWN:

A.  $95 - 5$

B. The number shown by the blocks



D.  $35 + 21$

E.  $92 - 5$

F.  $4 + 7$

G. The number after 124

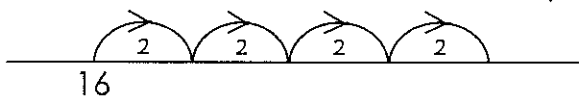
J. A number between 600 and 700

N. A number greater than 90

P. An even number

Q.  $9 + 8$

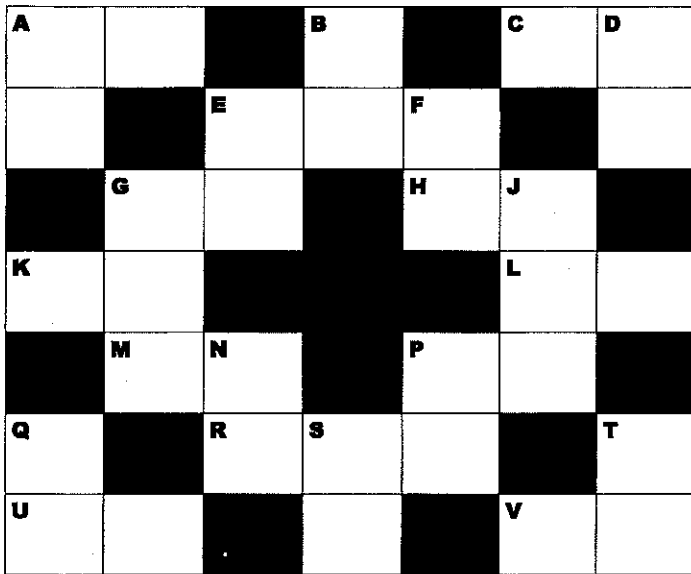
S. The number reached on the last hop



T. The number reached on the last hop



# CROSS-NUMBER PUZZLE 32



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $34 - 5$

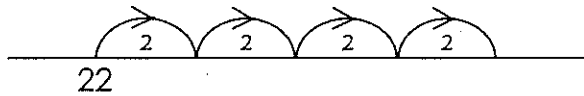
C.  $3 + 7 + 6 + 2 + 8$

E. The number after 264

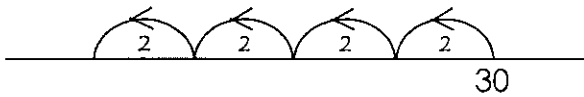
G. An even number

H.  $4 + 7$

K. The number reached on the last hop



L. The number reached on the last hop



M. A number between 80 and 90

P.  $8 + 6$

R. Choose the greatest number:  
570, 705, 750, 700

U.  $37 - 7$

V. The next number in the pattern:

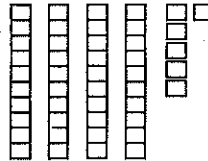
94, 84, 74, 64,

## DOWN:

A. The number of dots shown and hidden in the array



B. The number shown by the blocks



D.  $46 + 21$

E. The number of holes on the buttons



F. A number greater than 50

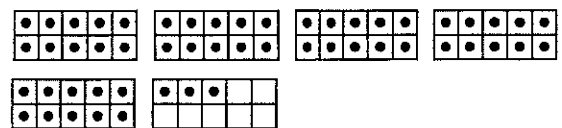
G. The number that reads six hundred eight

J. A number between 100 and 200

N.  $20 + 7$

P. An even number

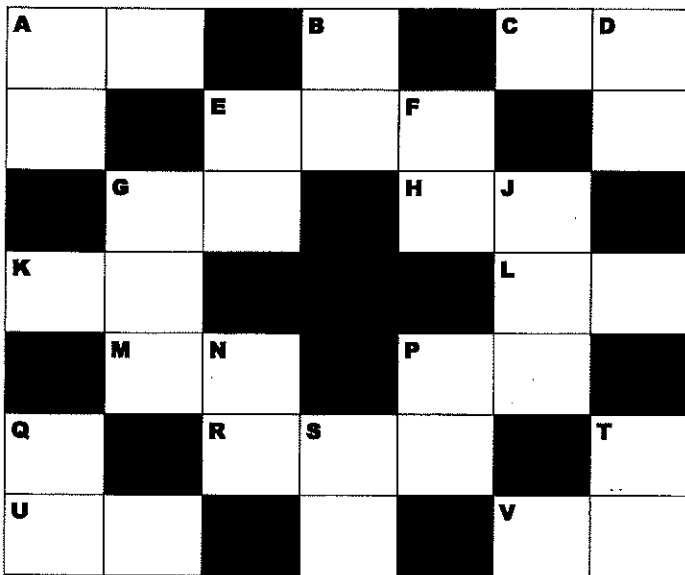
Q. The number shown by the ten-frames



S. The number that means 5 tens and 3 ones

T.  $79 + 5$

# CROSS-NUMBER PUZZLE 33



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

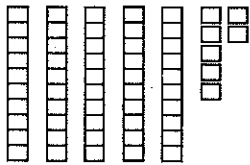
A.  $99 - 10 - 10 - 10 - 10$

C.  $4 + 6 + 3 + 8 + 2$

E.  $200 + 90 + 8$

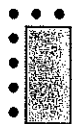
G. A number less than 70

H. The number shown by the blocks



K.  $57 + 22$

L. The number of dots shown and hidden in the array



M. An odd number

P.  $8 + 4$

R. Choose the least number:  
230, 302, 232, 320

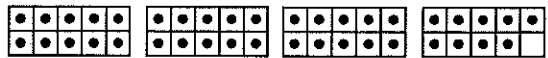
U.  $67 - 7$

V.  $9 + 5$

## DOWN:

A.  $63 - 5$

B. The number shown by the ten-frames



D. The number that means 3 tens and 9 ones

E. The next number in the pattern:

12, 15, 18, 21,

F. A number between 80 and 90

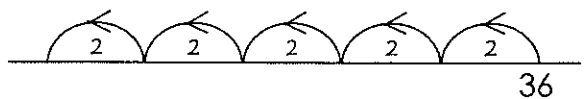
G. The number that is two more than 697

J. A number between 700 and 800

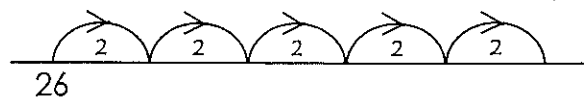
N.  $47 + 5$

P. An even number

Q. The number reached on the last hop



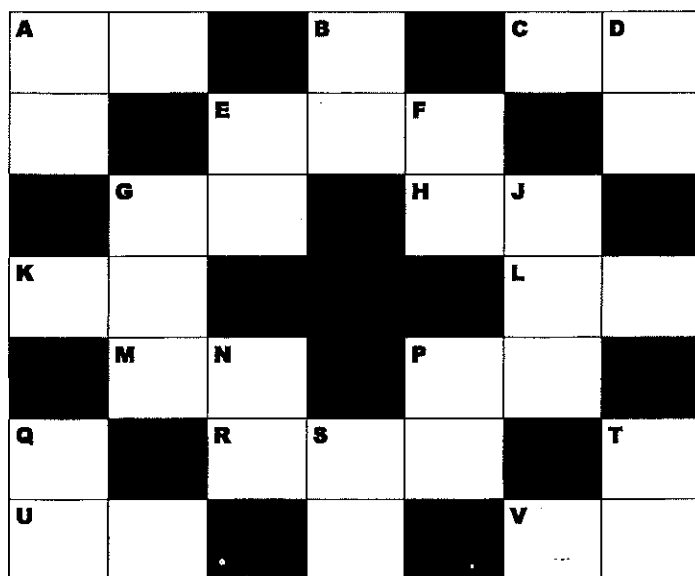
S. The number reached on the last hop



T. The number of holes on the buttons



# CROSS-NUMBER PUZZLE 34



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $5 + 7$

C. The next number in the pattern:

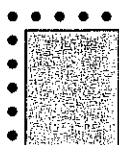
25, 27, 29, 31,

E. The number that is two less than 767

G. An even number

H.  $4 + 8$

K. The number of dots shown and hidden in the array



L. The number of holes on the buttons



M.  $8 + 6$

P. An even number

R. A number between 900 and 1000

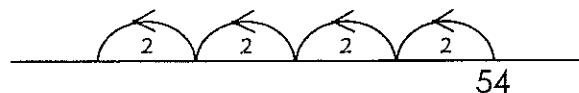
U.  $65 + 5$

V.  $6 + 4 + 5 + 6 + 4$

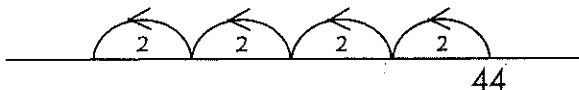
## DOWN:

A.  $7 + 9$

B. The number reached on the last hop



D. The number reached on the last hop



E.  $78 - 8$

F. An odd number

G. Choose the greatest number:  
500, 150, 105, 501

J. The number after 219

N.  $54 - 5$

P.  $64 + 10 + 10 + 3$

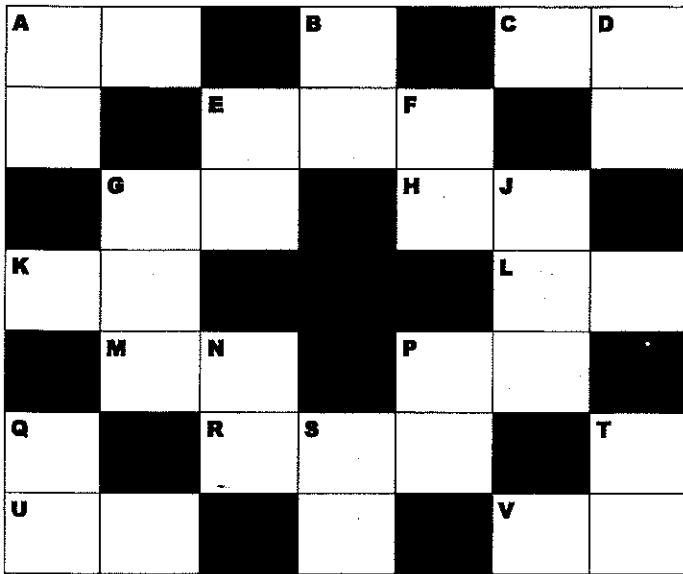
Q.  $64 + 23$

S.  $40 + 5$

T. The number that means 4 tens and 5 ones



# CROSS-NUMBER PUZZLE 35



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $42 - 5$

C. The next number in the pattern:  
15, 18, 21, 24,

E. A number less than 200

G.  $9 + 6$

H. The number shown by the tally

K.  $8 + 5$

L. The number that means 5 tens and 9 ones

M.  $50 + 9$

P. An even number

R.  $700 + 80$

U.  $3 + 7 + 6 + 3 + 7$

V. The number of holes on the buttons



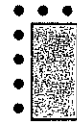
## DOWN:

A.  $25 + 5$

B.  $46 + 32$

D.  $46 + 10 + 10 + 10 + 2$

E. The number of dots shown and hidden in the array



F. A number with both digits the same

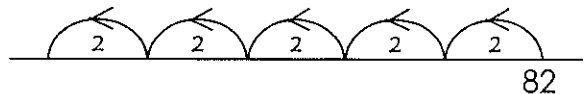
G. The number between 100 and 200

J. Choose the greatest number:  
546, 654, 564, 645

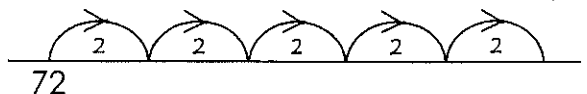
N. A number between 90 and 100

P.  $57 - 7$

Q. The number reached on the last hop



S. The number reached on the last hop



T.  $5 + 7$

## OVERVIEW: PUZZLE 36

Puzzles 36-40 are the eighth and last group of puzzles in *Cross-Number Discovery Puzzles 2*. The following number concepts, strategies and skills are included in this group of five puzzles. The outcomes are listed below as they appear in Puzzle 36.

### ACROSS:

- A. Decrementing off the decade, by tens
- C. Basic addition facts – addends of 8
- K. Adding two 2-digit numbers without regrouping
- L. Decrementing by twos
- M. Counting-back, over the decade
- P. Combining pairs of numbers that add to 10, sum less than 30
- R. Saying two numbers after a given 3-digit number
- U. Subtracting to a decade
- V. Counting by fours, up to and including 40

### DOWN:

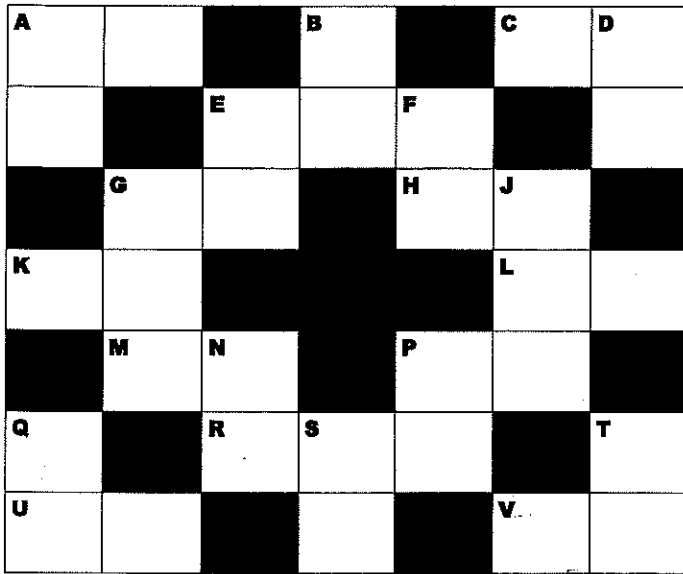
- A. Counting by tens and ones
- B. Subtraction involving two 2-digit numbers without regrouping  
Blocks are used to introduce decrementing by tens and ones.
- D. Counting-on over the decade
- E. Determining the number of dots in partially screened arrays
- F. Recognizing patterns that increase by 3
- G. Adding from a century and a decade
- J. Place-value relationship of hundreds, tens and ones  
This group of puzzles continues with developing the place-value relationship of hundreds, tens and ones.
- Q. Basic addition facts – remaining facts
- S. Counting by tens and ones
- T. Adding to a decade  
This group of puzzles introduces adding to a decade.

Two checklists of these outcomes are given at the end of the puzzles. The first checklist charts the progress of students as they work through the questions in Puzzle 40. The second checklist cross-references the questions in Puzzle 40 to the outcomes in *Teaching Number: Advancing Children's Skills and Strategies*, 2<sup>nd</sup> edition. This book addresses any gaps in students' understanding of number. As well, supplementary activity sheets and card games by author Celia Baron are available.

*Cross-Number Discovery Puzzles Level 2* focuses on the basic addition facts. Students needing more support with the basic addition facts can be referred to *Thinking Strategies Addition: Building Mastery of Addition Facts*.

Puzzles 36-40 are the last group of puzzles in *Cross-Number Discovery Puzzles 2*. Students who have successfully completed these puzzles are now ready for *Cross-Number Discovery Puzzles 3*.

# CROSS-NUMBER PUZZLE 36



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $79 - 10 - 10 - 10$

C.  $8 + 5$

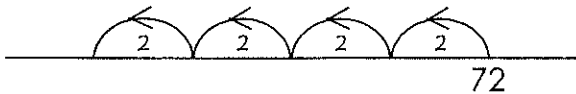
E. A number between 400 and 500

G. An even number

H. A number less than 40

K.  $25 + 21$

L. The number reached on the last hop



M.  $61 - 5$

P.  $9 + 8 + 5 + 2 + 1$

R. The number that is two more than two hundred thirty-eight

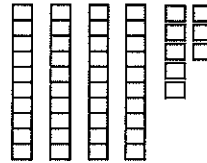
U.  $27 - 7$

V. The number of holes on the buttons



## DOWN:

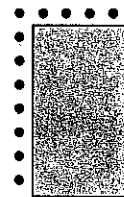
A. The number shown by the blocks



B.  $48 - 12$

D.  $29 + 5$

E. The number of dots in the array



F. The next number in the pattern:

21, 24, 27, 30,

G.  $800 + 60 + 5$

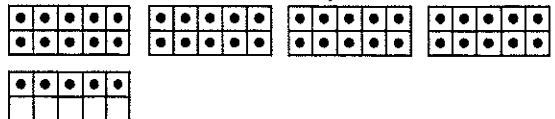
J. The number that means 8 hundreds, 6 tens and 5 ones

N. A number greater than 60

P. An even number

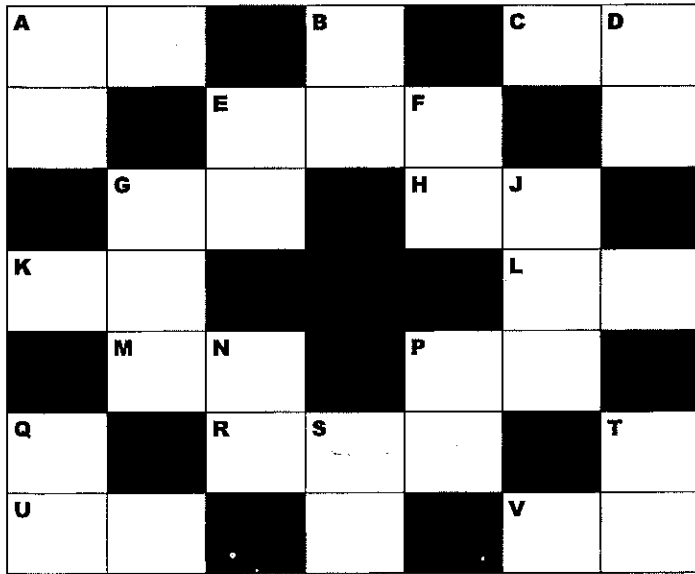
Q.  $7 + 5$

S. The number shown by the ten-frames



T.  $45 + 5$

# CROSS-NUMBER PUZZLE 37

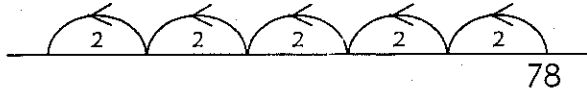


Cross-Number Discovery Puzzles 2 - © Cella Baron 2009

## ACROSS:

A.  $8 + 9$

C. The number reached on the last hop



E. The number that is two less than 310

G. A number between 90 and 100

H. The number that is two less than 81

K.  $37 + 22$

L.  $97 - 7$

M. An odd number

P. The next number in the pattern:

79, 69, 59, 49,

R. The number that is two more than three hundred thirty-nine

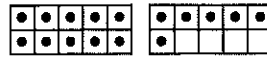
U. The number of dots in the array



V.  $3 + 3 + 4 + 7 + 7$

## DOWN:

A. The number shown by the ten-frames



B.  $16 + 4$

D.  $79 + 5$

E. The number of holes on the buttons



F. An odd number

G.  $900 + 90 + 9$

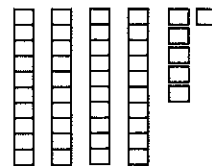
J. The number that means 9 hundreds, 9 tens and 9 ones

N.  $8 + 5$

P. A number greater than 30

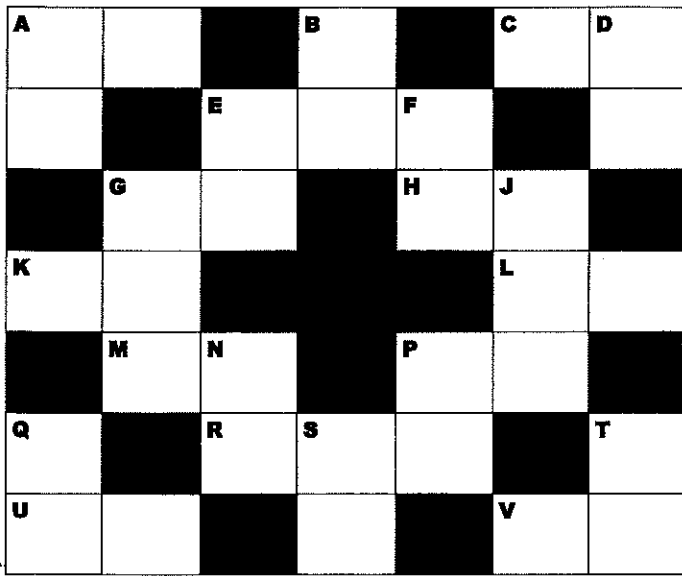
Q.  $4 + 7$

S. The number shown by the blocks



T.  $46 - 22$

# CROSS-NUMBER PUZZLE 38



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## ACROSS:

A. The number that is two less than 41

C.  $4 + 8$

E. Choose the least number:  
780, 807, 708, 800

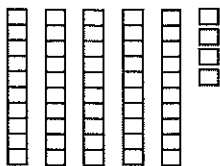
G. An even number

H. A number less than 60

K.  $4 + 7 + 8 + 3 + 6$

L.  $54 - 23$

M. The number shown by the blocks

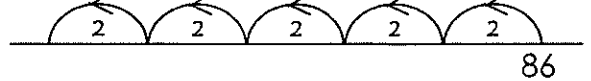


P. An even number

R. The number that is two less than 751

U.  $24 + 22$

V. The number reached on the last hop



## DOWN:

A. The next number in the pattern:

24, 27, 30, 33,

B. The number of holes on the buttons



D. The number of dots in the array



E.  $67 + 5$

F. A number that means 8 tens and 5 ones

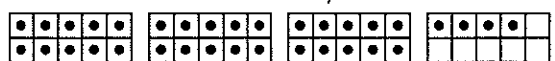
G. A number that means 9 hundreds, 8 tens and 5 ones

J. The number that is one more than three hundred twenty-nine

N. A number between 40 and 50

P.  $84 - 5$

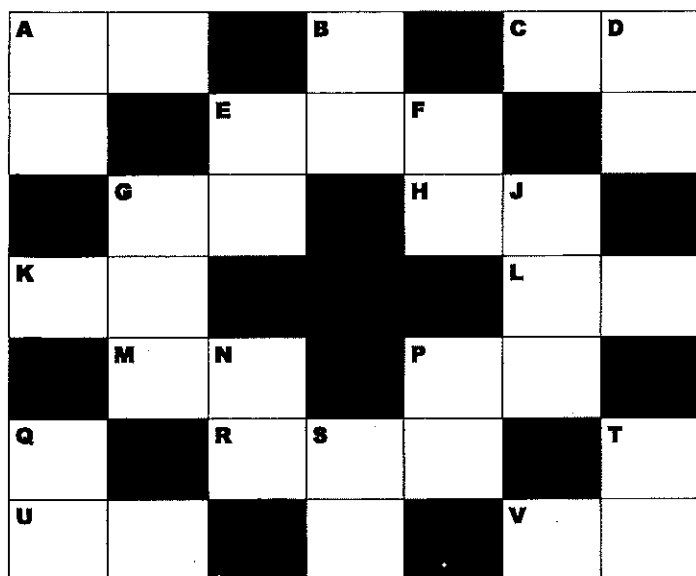
Q. The number shown by the ten-frames



S.  $34 + 6$

T.  $7 + 9$

# CROSS-NUMBER PUZZLE 39



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $9 + 5$

C.  $52 - 10 - 10 - 10 - 10$

E. The number that is two less than 910

G.  $67 - 7$

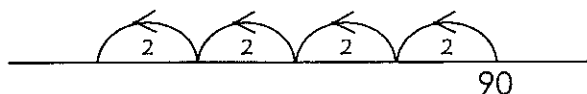
H. A number between 40 and 50

K.  $2 + 4 + 7 + 6 + 8$

L. The next number in the pattern:

55, 60, 65, 70,

M. The number reached on the last hop



P. An even number

R. Choose the greatest number:

964, 960, 946, 940

U. The number of holes on the buttons



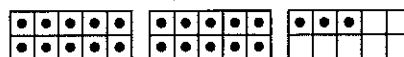
V.  $60 - 5$

## DOWN:

A.  $8 + 4$

B.  $23 + 7$

D. The number shown by the ten-frames



E. An even number

F.  $79 + 5$

G. The number that means 6 hundreds, 7 tens and 8 ones

J.  $600 + 70 + 8$

N. A number less than 30

P.  $56 - 10 - 10 - 2$

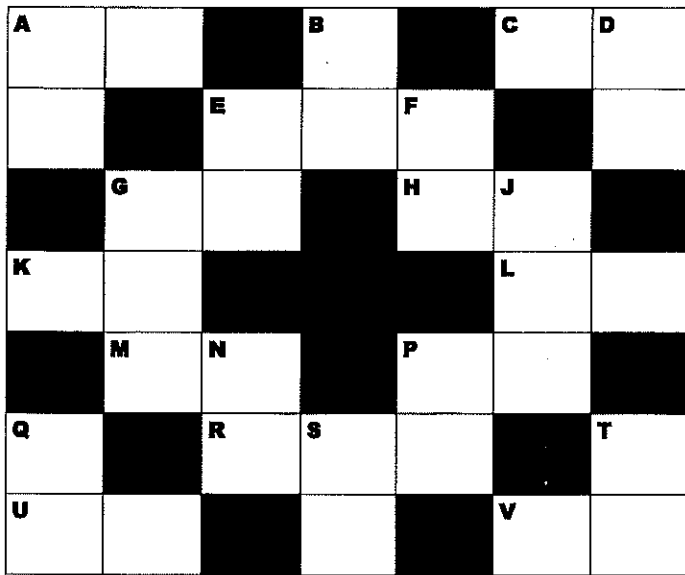
Q.  $56 - 22$

S.  $47 + 21$

T. The number of dots in the array



# CROSS-NUMBER PUZZLE 40



Cross-Number Discovery Puzzles 2 - © Celia Baron 2009

## ACROSS:

A.  $34 - 5$

C.  $3 + 8 + 6 + 2 + 7$

E. The number that is two less than 431

G. An odd number

H.  $8 + 9$

K.  $65 + 5$

L.  $75 + 5$

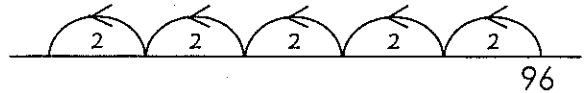
M. A number less than 20

P.  $68 - 8$

R. The number that means 3 hundreds, 3 tens and 3 ones

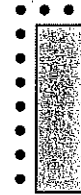
U. The number that means 3 tens and 3 ones

V. The number reached on the last hop



## DOWN:

A. The number of dots in the array



B.  $85 - 10 - 10 - 3$

D.  $85 - 23$

E. The next number in the pattern:  
33, 35, 37, 39,

F. A number between 90 and 100

G. The number that is two more than one hundred ninety-nine

J. A number between 700 and 800

N.  $5 + 8$

P. An odd number

Q.  $68 + 5$

S. The number of holes on the buttons



T.  $64 + 32$

