



# Unusual Problems

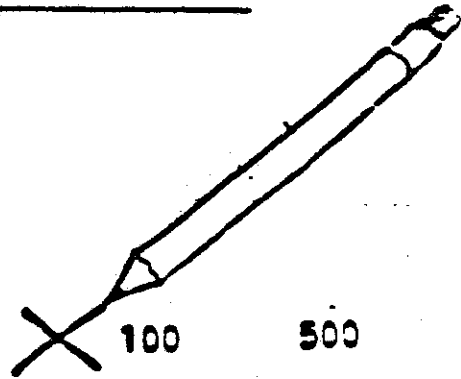
Name \_\_\_\_\_

$39 + 38$

0

10

50



100

500

1000

$19 + 18$

0

10



50

100

500

1000

$491 + 23$

0

10

50

100

500



1000

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ADDITION

|  |   |    |    |     |     |      |
|--|---|----|----|-----|-----|------|
| $19 + 29$                                      | 0 | 10 | 50 | 100 | 500 | 1000 |
| $257 + 294$                                    | 0 | 10 | 50 | 100 | 500 | 1000 |
| $59 + 49$                                      | 0 | 10 | 50 | 100 | 500 | 1000 |
| $19 + 19 + 19$                                 | 0 | 10 | 50 | 100 | 500 | 1000 |
| $27\frac{2}{3} + 21\frac{2}{3}$                | 0 | 10 | 50 | 100 | 500 | 1000 |
| $20\frac{1}{2} + 20\frac{1}{2} + 9\frac{1}{2}$ | 0 | 10 | 50 | 100 | 500 | 1000 |
| $50.9 + 49.9$                                  | 0 | 10 | 50 | 100 | 500 | 1000 |
| $1.5 + 1.5 + 1.5 + 1.5$                        | 0 | 10 | 50 | 100 | 500 | 1000 |

SUBTRACTION

|                                 |   |    |    |     |     |      |
|---------------------------------|---|----|----|-----|-----|------|
| $945 - 855$                     | 0 | 10 | 50 | 100 | 500 | 1000 |
| $751 - 249$                     | 0 | 10 | 50 | 100 | 500 | 1000 |
| $105 - 8$                       | 0 | 10 | 50 | 100 | 500 | 1000 |
| $900 - 401$                     | 0 | 10 | 50 | 100 | 500 | 1000 |
| $60\frac{1}{4} - 50\frac{1}{2}$ | 0 | 10 | 50 | 100 | 500 | 1000 |
| $15\frac{2}{3} - 5\frac{1}{3}$  | 0 | 10 | 50 | 100 | 500 | 1000 |
| $100 - 50.5$                    | 0 | 10 | 50 | 100 | 500 | 1000 |
| $20.009 - 10.1$                 | 0 | 10 | 50 | 100 | 500 | 1000 |

MULTIPLICATION

|                          |   |    |    |     |     |      |
|--------------------------|---|----|----|-----|-----|------|
| $2 \times 19$            | 0 | 10 | 50 | 100 | 500 | 1000 |
| $40 \times 10$           | 0 | 10 | 50 | 100 | 500 | 1000 |
| $11 \times 50$           | 0 | 10 | 50 | 100 | 500 | 1000 |
| $4 \times 29$            | 0 | 10 | 50 | 100 | 500 | 1000 |
| $\frac{1}{2} \times 199$ | 0 | 10 | 50 | 100 | 500 | 1000 |
| $\frac{1}{4} \times 401$ | 0 | 10 | 50 | 100 | 500 | 1000 |
| $4.9 \times 9.9$         | 0 | 10 | 50 | 100 | 500 | 1000 |
| $125 \times 0.5$         | 0 | 10 | 50 | 100 | 500 | 1000 |

DIVISION

|                                   |   |   |    |    |     |
|-----------------------------------|---|---|----|----|-----|
| $190 \div 10$                     | 0 | 1 | 10 | 50 | 100 |
| $301 \div 50$                     | 0 | 1 | 10 | 50 | 100 |
| $300 \div 4$                      | 0 | 1 | 10 | 50 | 100 |
| $101 \div 9$                      | 0 | 1 | 10 | 50 | 100 |
| $10\frac{1}{2} \div 1\frac{1}{2}$ | 0 | 1 | 10 | 50 | 100 |
| $1 \div \frac{1}{2}$              | 0 | 1 | 10 | 50 | 100 |
| $9.5 \div 0.5$                    | 0 | 1 | 10 | 50 | 100 |
| $100 \div 10.5$                   | 0 | 1 | 10 | 50 | 100 |

TOM'S GAME

|              | Class said: | Tom's answer:        |
|--------------|-------------|----------------------|
| First clue:  | 4           | 8                    |
| Second clue: | 3           | 7                    |
| Third clue:  | 5           | 9                    |
| Question:    | 1           | <input type="text"/> |

MARIA'S GAME

|              | Class said: | Maria's answer:      |
|--------------|-------------|----------------------|
| First clue:  | 2           | 12                   |
| Second clue: | 5           | 30                   |
| Third clue:  | 8           | 48                   |
| Question:    | 3           | <input type="text"/> |

BUD'S GAME

|              | Class said:          | Bud's answer: |
|--------------|----------------------|---------------|
| First clue:  | 12                   | 4             |
| Second clue: | 4                    | 1             |
| Third clue:  | 44                   | 11            |
| Question:    | <input type="text"/> | 8             |

AMY'S GAME

|              | Class said:          | Amy's answer |
|--------------|----------------------|--------------|
| First clue:  | 3                    | 29           |
| Second clue: | 6                    | 59           |
| Third clue:  | 8                    | 79           |
| Question:    | <input type="text"/> | 49           |

PAUL'S GAME

|              | Class said:          | Paul's answer: |
|--------------|----------------------|----------------|
| First clue:  | 3                    | $4\frac{1}{2}$ |
| Second clue: | $1\frac{1}{2}$       | 3              |
| Third clue:  | $\frac{1}{4}$        | $1\frac{3}{4}$ |
| Question:    | <input type="text"/> | 8              |

SARA'S GAME

|              | Class said: | Tom's answer:        |
|--------------|-------------|----------------------|
| First clue:  | 3           | 1.5                  |
| Second clue: | 9           | 4.5                  |
| Third clue:  | 6.8         | 3.4                  |
| Question:    | 2.4         | <input type="text"/> |

1. John is taller than Bill.

Bill is taller than Tom.

Who is tallest?      John      Bill      Tom      Can't tell

2. Dave is shorter than Jim.

Jim is shorter than Andy.

Who is tallest?      Dave      Jim      Andy      Can't tell

3. Paul is taller than John.

John is shorter than Bob.

Who is tallest?      Paul      John      Bob      Can't tell

4. Ellen is not taller than Linda.

Linda is shorter than Karen.

Who is shortest?      Linda      Ellen      Karen      Can't tell

5. Ann is taller than Barb and Carol.

Carol is shorter than Barb and Diane.

Who is tallest?      Ann      Barb      Carol      Diane      Can't tell

Who is shortest?      Ann      Barb      Carol      Diane      Can't tell

6. The banker is one of these men: Smith, Jones, Brown, Williams, Gates

The banker is the tallest and fattest man.

Smith is taller than Jones, but shorter than Brown.

Brown is fatter than Williams, but thinner than Smith.

Who is the banker?      Smith      Jones      Brown      Williams      Gates

7. There are 5 children: Bill, Maria, Tony, Helen and Abby.

Bill is taller than Maria but not as tall as Tony.

Helen and Maria are taller than Abby.

Helen is taller than Maria but not as tall as Bill.

Who is tallest?      Bill      Maria      Helen      Abby      Tony      Can't tell

Who is shortest?      Bill      Maria      Helen      Abby      Tony      Can't tell

Rules

- 1. Always start at zero
- 2. Only use these numbers: 2, 3, 5, 7
- 3. Only use these operations: +, -, x, -
- 4. Always end up at 12.

Solutions

Start at zero, +7, x2, -2

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Start at zero, +5, +3, ÷2, x3

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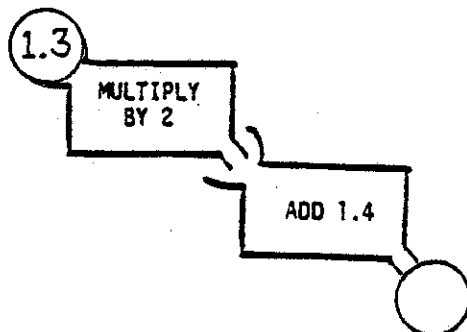
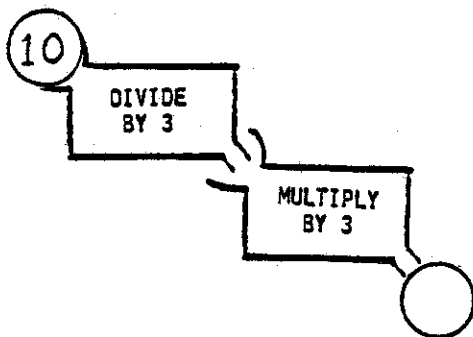
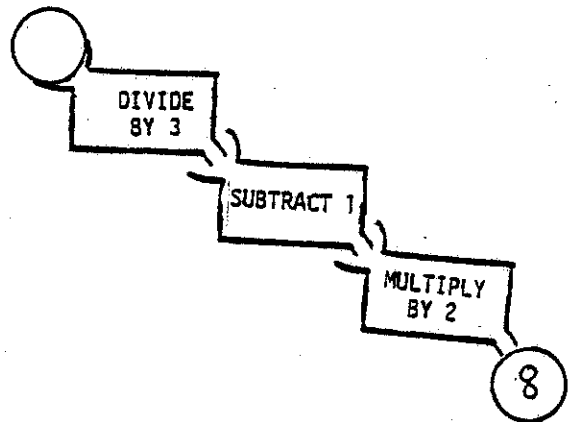
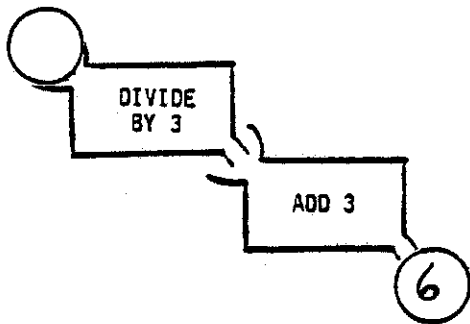
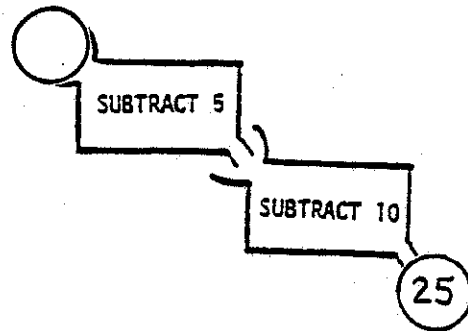
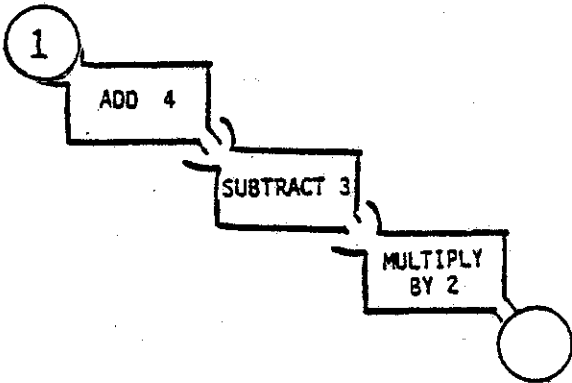
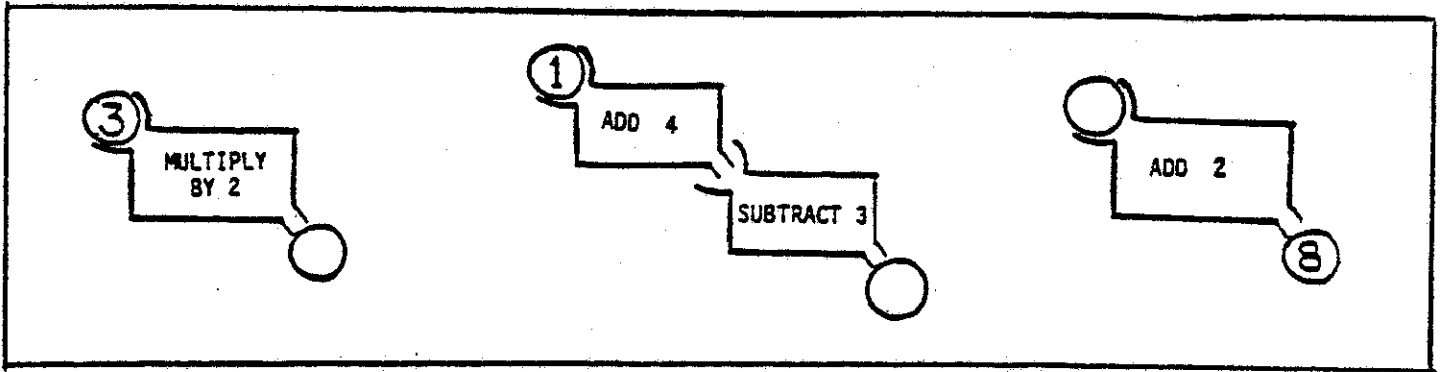
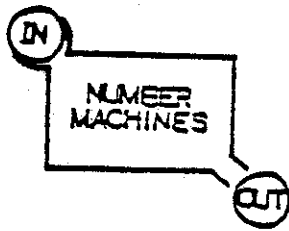
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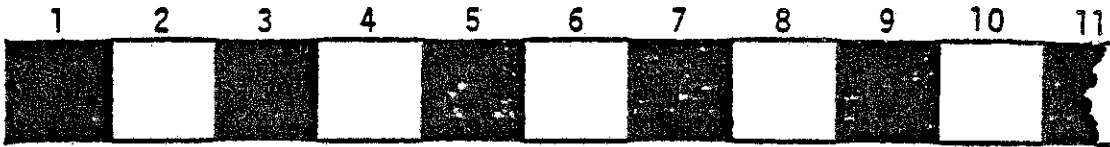
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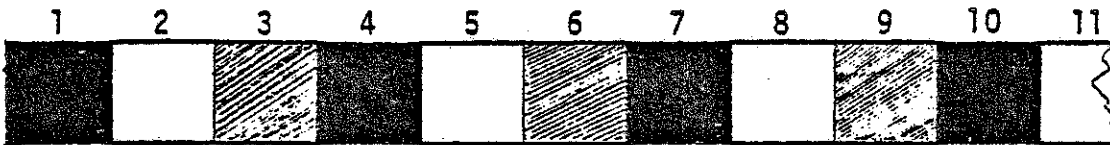


1. What color will the 90th square be?      black      white

What color will the 91st square be?      black      white

What color will the 92nd square be?      black      white

About how many of the first 100 squares will be white? \_\_\_\_\_

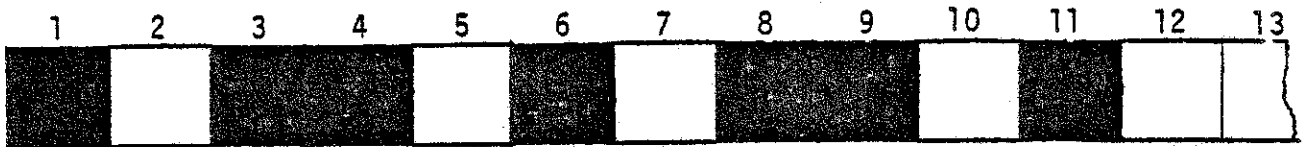


2. What color will the 90th square be?      black      white      gray

What color will the 91st square be?      black      white      gray

What color will the 92nd square be?      black      white      gray

About how many of the first 100 squares will be white? \_\_\_\_\_



3. What color will the 36th square be?      black      white

What color will the 60th square be?      black      white

What color will the 65th square be?      black      white



4.



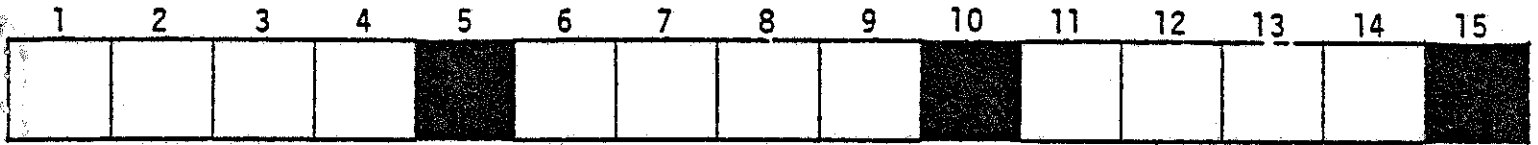
What color will the 1st square be?      black    white    gray

What color will the 5th square be?      black    white    gray

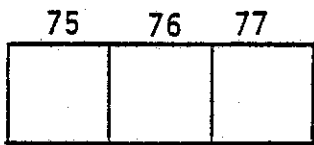
What color will the 10th square be?      black    white    gray

What color will the 105th square be?      black    white    gray

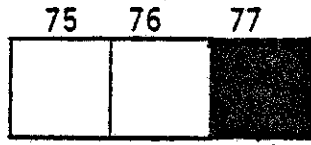
5. Look at this pattern, then answer the 2 questions below. Circle your answers.



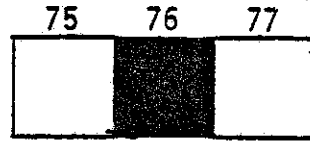
Which answer show what the 75th, 76th and 77th squares will be?      a    b    c    d



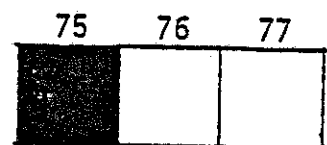
a



b

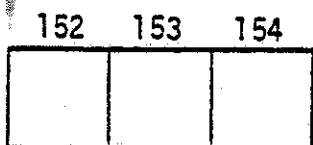


c

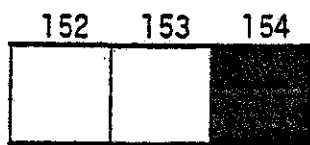


d

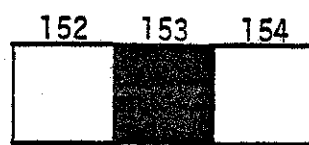
Which answer shows what the 152nd, 153rd, and 154th squares will be?      a    b    c    d



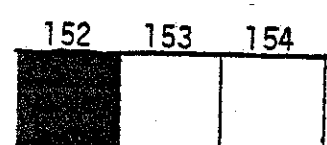
a



b



c



d

Circle the letter for your answers.

1. Every chess club member played every other member just once. After a new member joined, 8 more games had to be played.

How many members are in the club now?

- a) 20      b) 16      c) 12      d) 9      e) 8

2. Jose has 300 stamps in his collection. If one-third of the stamps are from Canada, how many are from Mexico?

- a) 100      b) 150      c) 200      d) can't tell

3. Steve has 7 bills. Some of them are \$1 bills and some are \$2 bills. Altogether he has \$10 in bills.

How many \$2 bills does he have?

- a) 1      b) 2      c) 5      d) 4

4. Three-fourths of Tim's field is planted in corn. One half of the corn is sweet corn. What portion of the field is planted in sweet corn?

- a)  $\frac{3}{2}$       b)  $\frac{3}{8}$       c)  $\frac{1}{2}$       d)  $\frac{1}{8}$

5. In Mrs. Jones' class:

12 students wear tennis shoes

18 students wear glasses.

9 students wear tennis shoes and glasses

3 students don't wear tennis shoes or glasses.

Write your answers in the blanks.

How many students wear glasses and tennis shoes? \_\_\_\_\_

How many students are there in Mrs. Jones' class? \_\_\_\_\_