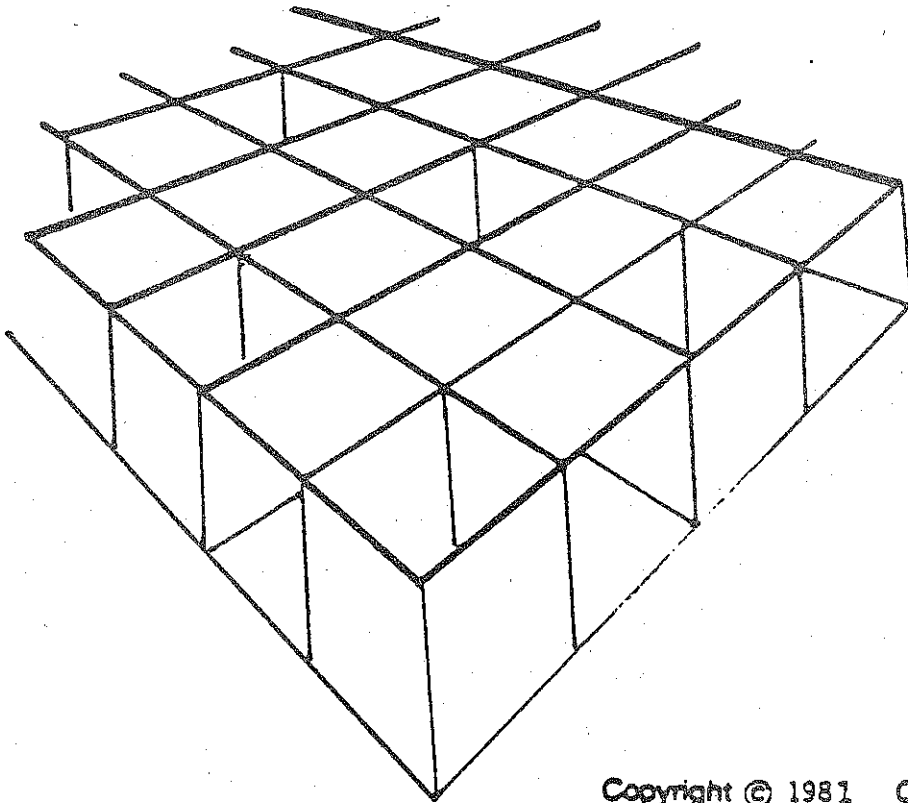


# Unusual Problems

Name \_\_\_\_\_



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~~b~~

## Visiting the Zoo

	Sally	Amy	Carl	Andy	Don	Kay
Bears	✓		✓			
Apes		✓		✓	✓	✓
Lions	✓				✓	
Tigers		✓	✓		✓	

Which Students? Give all the correct answers.

Who saw the bears? \_\_\_\_\_

Who saw both the apes and the tigers? \_\_\_\_\_

Who did not see the tigers? \_\_\_\_\_

Who did not see the lions and did not see the apes? \_\_\_\_\_

Who saw the bears, the lions and the tigers? \_\_\_\_\_

Who saw the most kinds of animals? \_\_\_\_\_

# PRACTICE

$39 + 38$

0

10

50



100

500

1000

$19 + 18$

0

10



50

100

500

1000

$491 + 23$

0

10

50

100

500



1000

# ADDITION

$9 + 19$

0

10

50

100

500

1000

$270 + 270$

0

10

50

100

500

1000

$19 + 29$

0

10

50

100

500

1000

$51 + 53$

0

10

50

100

500

1000

$29 + 29$

0

10

50

100

500

1000

$279 + 165$

0

10

50

100

500

1000

$19 + 19 + 19$

0

10

50

100

500

1000

$9 + \frac{1}{2}$

0

10

50

100

500

1000

GO ON TO THE NEXT PAGE

# SUBTRACTION

90-12      0      10      50      100      500      1000

559 - 558      0      10      50      100      500      1000

105 - 8      0      10      50      100      500      1000

900 - 601      0      10      50      100      500      1000

100 - 93      0      10      50      100      500      1000

137 - 125      0      10      50      100      500      1000

827 - 231      0      10      50      100      500      1000

990 - 110      0      10      50      100      500      1000

# MULTIPLICATION

$$4 \times 23 \quad 0 \quad 10 \quad 50 \quad 100 \quad 500 \quad 1000$$

$$2 \times 209 \quad 0 \quad 10 \quad 50 \quad 100 \quad 500 \quad 1000$$

$$2 \times 19 \quad 0 \quad 10 \quad 50 \quad 100 \quad 500 \quad 1000$$

$$5 \times 11 \quad 0 \quad 10 \quad 50 \quad 100 \quad 500 \quad 1000$$

$$3 \times 211 \quad 0 \quad 10 \quad 50 \quad 100 \quad 500 \quad 1000$$

$$\frac{1}{2} \times 15 \quad 0 \quad 10 \quad 50 \quad 100 \quad 500 \quad 1000$$

# DIVISION

300 divided by 4      1      10      20      100

190 divided by 10      1      10      20      100

980 divided by 100      1      10      20      100

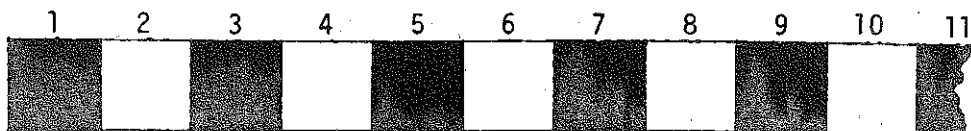
45 divided by 2      1      10      20      100

13 divided by 2      1      10      20      100

53 divided by 5      1      10      20      100

STOP. DO NOT TURN THE PAGE YET

1.



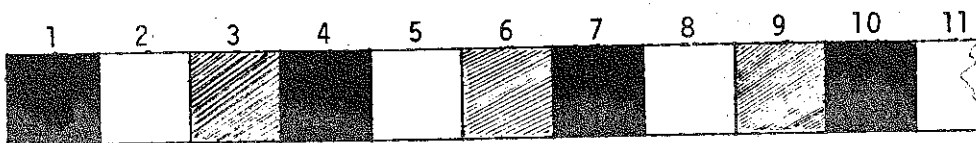
What color will the 90th square be?      black      white

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

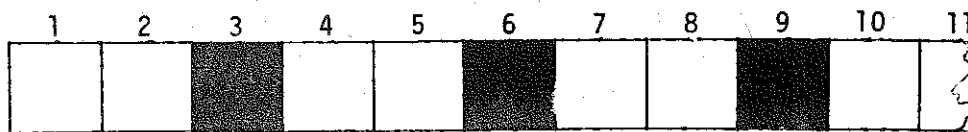
What color will the 91st square be?      black      white      gray

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

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



3.



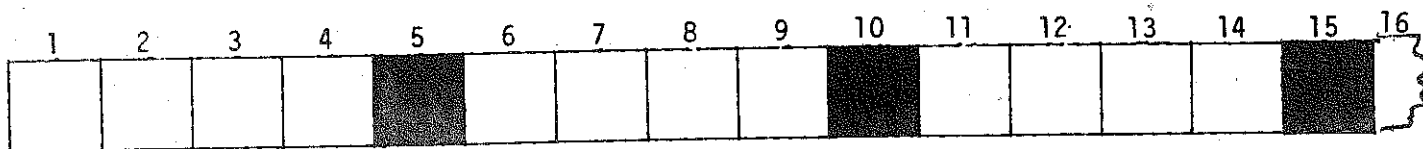
What color will the 90th square be?      black      white

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? \_\_\_\_\_

4.



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

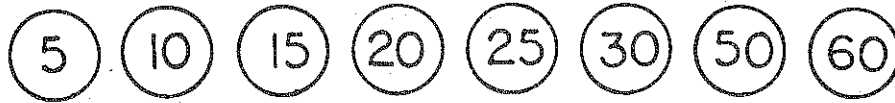
About how many of the first 100 squares will be white? \_\_\_\_\_

Someone cut out a piece from this last pattern.  
The piece had 2 black squares.  
How many white squares could it have?

\_\_\_\_\_  
(Give all possible answers)

RULES

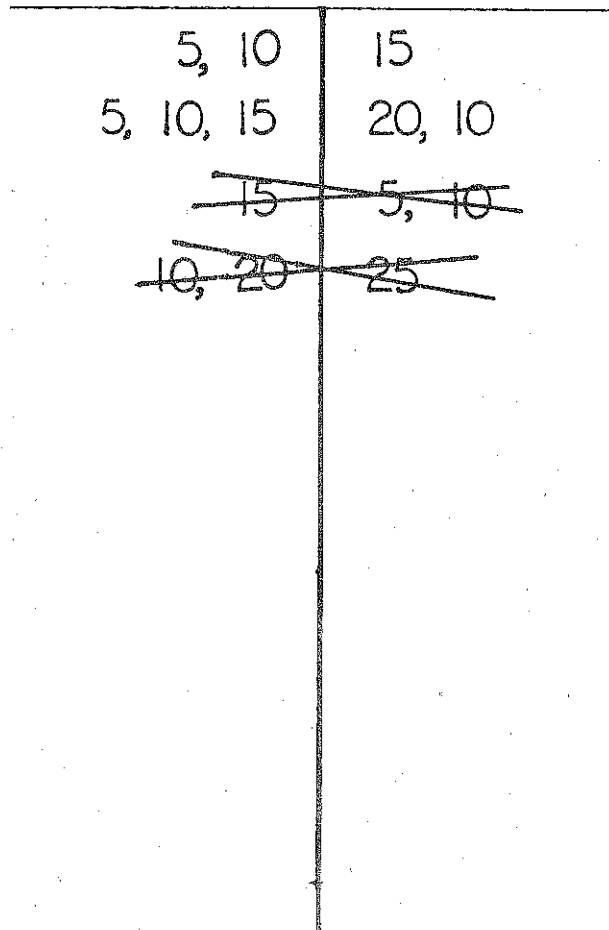
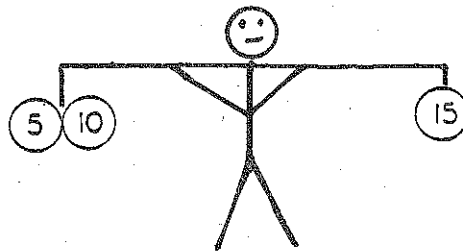
1. These are the weights Al has.



2. Al cannot lift more than 100 pounds altogether.

3. The two ends must balance.

Show all the ways he could lift weights.



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"/>

SUSAN'S GAME

	Class said:	Susan's answer:
First clue:	3	1
Second clue:	11	9
Third clue:	10	8
Question:	15	<input type="text"/>

JOHN'S GAME

	Class said:	John's answer:
First clue:	3	12
Second clue:	5	20
Third clue:	10	40
Question:	4	<input type="text"/>



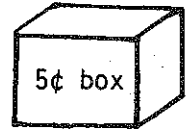
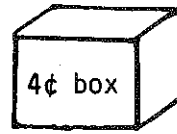
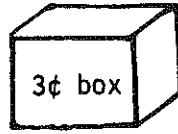
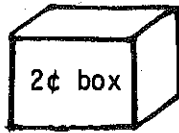
### JIM'S GAME

	Class said:	Jim's answer:
First clue:	2	6
Second clue:	5	9
Third clue:	10	14
Question:	<input type="checkbox"/>	12

### TINA'S GAME

	Class said:	Tina's answer:
First clue:	10	5
Second clue:	4	2
Third clue:	8	4
Question:	<input type="checkbox"/>	3

1. These are the boxes of candy:



These are the girls: Maria, Carol, Helen, Jane

These are the facts:

Each girl chooses a box and buys every candy in the box.

Each girl chooses a different box than the other girls.

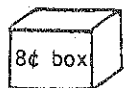
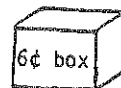
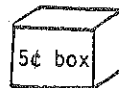
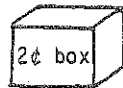
Maria chooses the 4¢ box. She could spend 4¢ or 8¢ or 12¢ or 16¢, and so on.

Then Jane spends exactly 9¢. Which box did Jane buy? \_\_\_\_\_

Then Carol spends exactly 15¢. Which box did Carol buy? \_\_\_\_\_

Which box did Helen buy? \_\_\_\_\_

2. These are the boxes:



Andy chooses a different box than Bill.

No matter how many candies are in their boxes:

Andy couldn't spend exactly 35¢.

Bill couldn't spend exactly 50¢.

Both Andy and Bill couldn't spend exactly 12¢.

Which box did Andy choose? \_\_\_\_\_

Which box did Bill choose? \_\_\_\_\_

3. This time there are many, many boxes.

Ed is choosing a box.

He chooses a box and looks inside.

It has more than 1 candy and he has to spend exactly 18¢.

Which box did he choose? \_\_\_\_\_

$$\boxed{\phantom{000}} + 70 = 90$$

$$3 \times 125 = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} + 125 = 250$$

$$200 \times \boxed{\phantom{000}} = 800$$

$$375 + \boxed{\phantom{000}} = 600$$

$$700 \text{ divided by } 10 = \boxed{\phantom{000}}$$

$$\boxed{\phantom{000}} - 200 = 25$$

$$\boxed{\phantom{000}} \text{ divided by } 2 = 120$$

$$300 - \boxed{\phantom{000}} = 250$$

$$600 \text{ divided by } \boxed{\phantom{000}} = 2$$