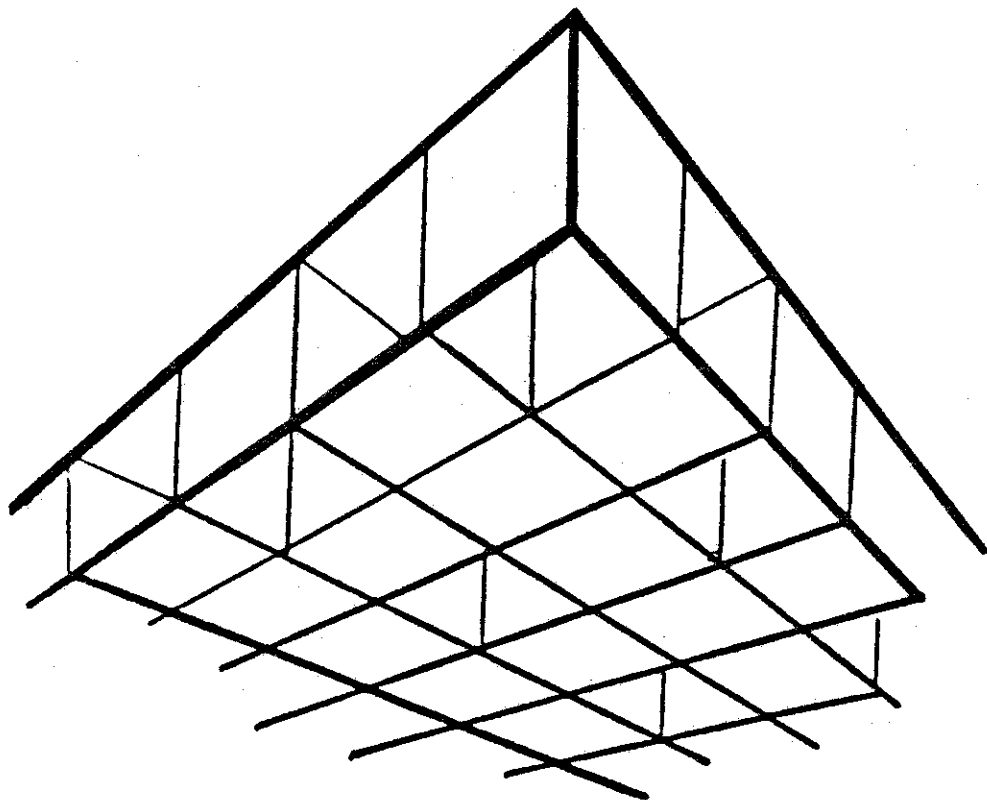




More Unusual Problems

Name _____



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These are the 4 boys: Bill Tom Ed Pete

These are the 4 leagues: indoor soccer outdoor soccer indoor hockey outdoor hockey

These are the facts: Each boy plays in a different league.

Bill plays indoors.

Tom doesn't play hockey.

Ed doesn't play outdoors and he doesn't play soccer.

What league does each boy play in? (Circle your answers)

Bill: indoor soccer outdoor soccer indoor hockey outdoor hockey

Tom: indoor soccer outdoor soccer indoor hockey outdoor hockey

Ed: indoor soccer outdoor soccer indoor hockey outdoor hockey

Pete: indoor soccer outdoor soccer indoor hockey outdoor hockey

There are 3 sports: soccer, hockey and basketball.

For each sport there are 2 leagues: an indoor league and an outdoor league.

How many leagues are there? _____

These are the facts: The boys are called A, B, C, and so on.

Each boy plays on a different league.

A and C play basketball.

B and D don't play soccer.

A, B, and E play indoors.

Which league does each boy play in?

A _____

B _____

C _____

D _____

E _____

F _____

There are 4 girls: Ann Bonny Carla Doris

There are 4 days: Monday Tuesday Wednesday Thursday

There are 4 sports: Bicycling Swimming Volleyball Horseback Riding

These are the facts: Each girl takes one lesson a week in her sport.

Each girl plays a different sport.

Bonny takes lessons on Tuesday and doesn't take swimming.

Ann takes volleyball and doesn't take lessons on Monday.

Doris takes lessons on Wednesday and doesn't take bicycling or swimming.

Who took what sport on what day? (Circle your answer)

Day

Sport

Ann:	Mon	Tue	Wed	Thur	Fri	Bicycle	Swimming	Volleyball	Horseback riding
Bonny:	Mon	Tue	Wed	Thur	Fri	Bicycle	Swimming	Volleyball	Horseback riding
Carla:	Mon	Tue	Wed	Thur	Fri	Bicycle	Swimming	Volleyball	Horseback riding
Doris:	Mon	Tue	Wed	Thur	Fri	Bicycle	Swimming	Volleyball	Horseback riding

$6 \times 30 = \boxed{}$

$\boxed{} \times 250 = 500$

$7 \times \boxed{} = 280$

$25 \times 32 = \overset{300}{900}$

$26 \times 32 = \boxed{}$

$12 \times 500 = \boxed{}$

$500 \text{ Divided by } 2 = \boxed{}$

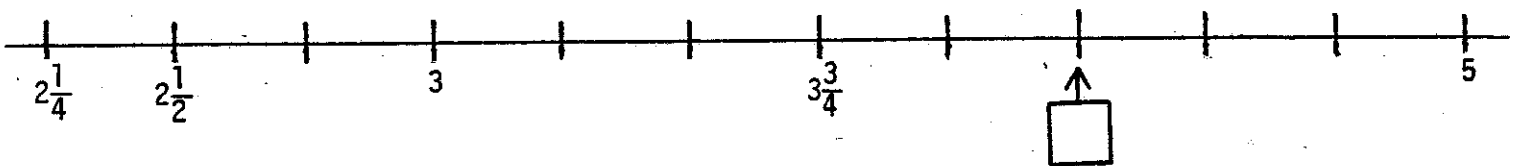
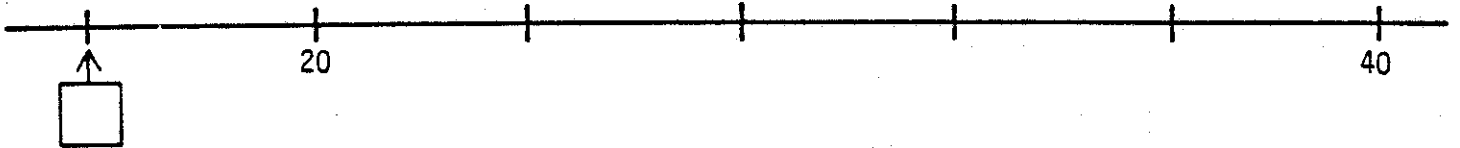
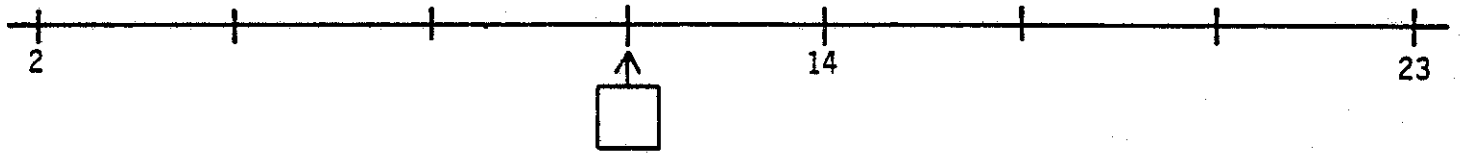
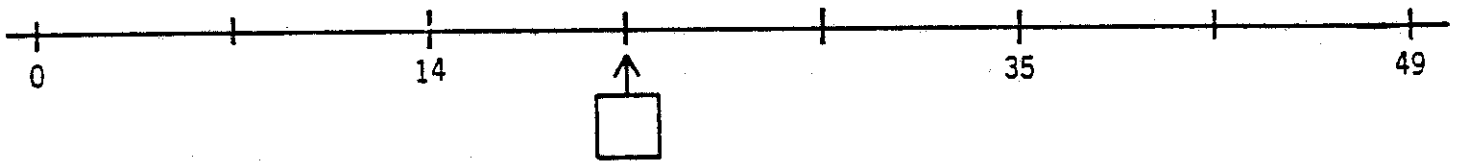
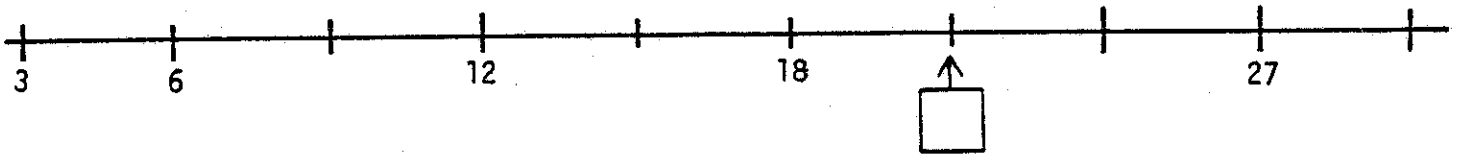
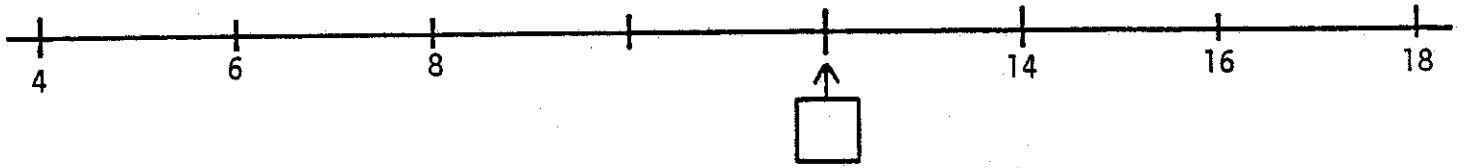
$800 \text{ Divided by } \boxed{} = 200$

$360 \text{ Divided by } 90 = \boxed{}$

$1,200 \text{ Divided by } 30 = 40$

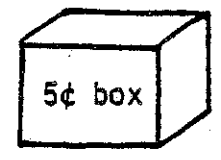
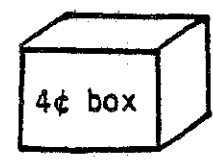
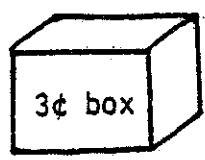
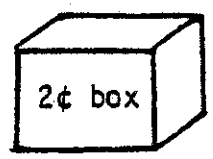
$1,200 \text{ Divided by } 15 = \boxed{}$

$498 \text{ Divided by } \boxed{} = 498$



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? _____

4. Three friends go shopping: Bill, Len and Alice

There are two boxes: Blue and Green

If Bill buys a blue box, he also buys a green box.

He does not buy a green box.

Does he buy a blue box? Yes No Can't tell
(Circle your answer)

Len buys a blue box or a green box.

He does not buy a blue box.

Does he buy a green box? Yes No Can't tell
(Circle your answer)

Alice doesn't buy both a blue box and a green box.

She buys a blue box.

Does she buy a green box? Yes No Can't tell
(Circle your answer)

CHECK ONE

Less than 1

Exactly 1

More than 1

Sample: $\frac{3}{4} + \frac{3}{4}$



$$\frac{7}{12} + \frac{5}{12}$$

$$\frac{7}{8} \times \frac{7}{8}$$

$$1\frac{5}{8} - \frac{1}{128}$$

$$\frac{1}{2} + \frac{1}{4}$$

$$1\frac{1}{2} - \frac{2}{4}$$

$$8\frac{1}{2} \div 8$$

$$70 - 69\frac{1}{8}$$

$$1\frac{1}{2} \times \frac{2}{3}$$

$$2\frac{1}{2} \div 3$$

Which is larger?

$\frac{1}{2}$ or $\frac{1}{3}$ (Circle one)

$\frac{3}{4}$ or $1\frac{1}{4}$ (Circle one)

$\frac{5}{2}$ or $\frac{5}{4}$ (Circle one)

1.5 or 0.58 (Circle one)

6.01 or 6.1 (Circle one)

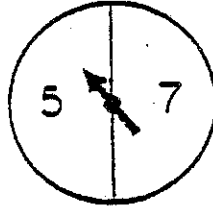
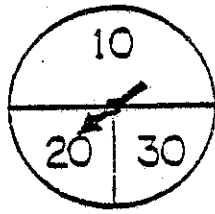
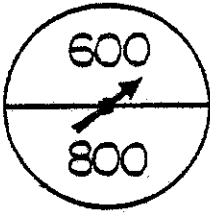
0.9 or 0.111 (Circle one)

0.5 or $\frac{4}{7}$ (Circle one)

1.75 or $\frac{3}{2}$ (Circle one)

0.01 or $\frac{1}{1000}$ (Circle one)

- ① Spin all three spinners at the same time.
Your score is the total from all three spinners.

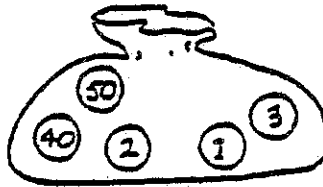


What are the possible total scores? 625,

- ② Start at zero.
Count by some number.
End up at 60.

What could you be counting by? 5,

- ③ Close your eyes.
Pick out three balls.
Add to get a total score.



What are the possible total scores? 93,

- ④ Multiple of 2
Multiple of 3
Smaller than 50

For what numbers are all three statements true? 24,

- ⑤ Digits must add to 5.
Between 200 and 1000

What are the possible numbers? 311,
