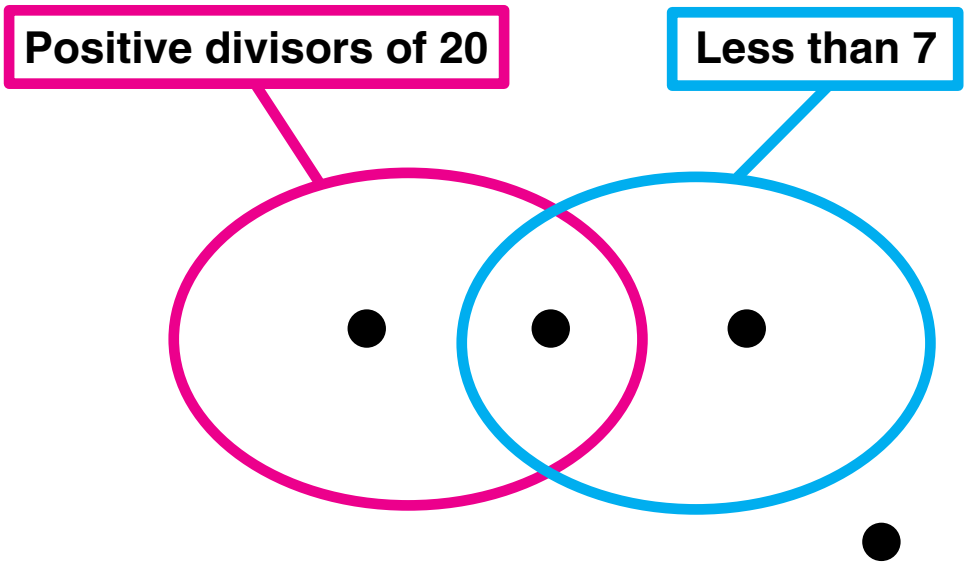
Name _____

Selection of Problems #4

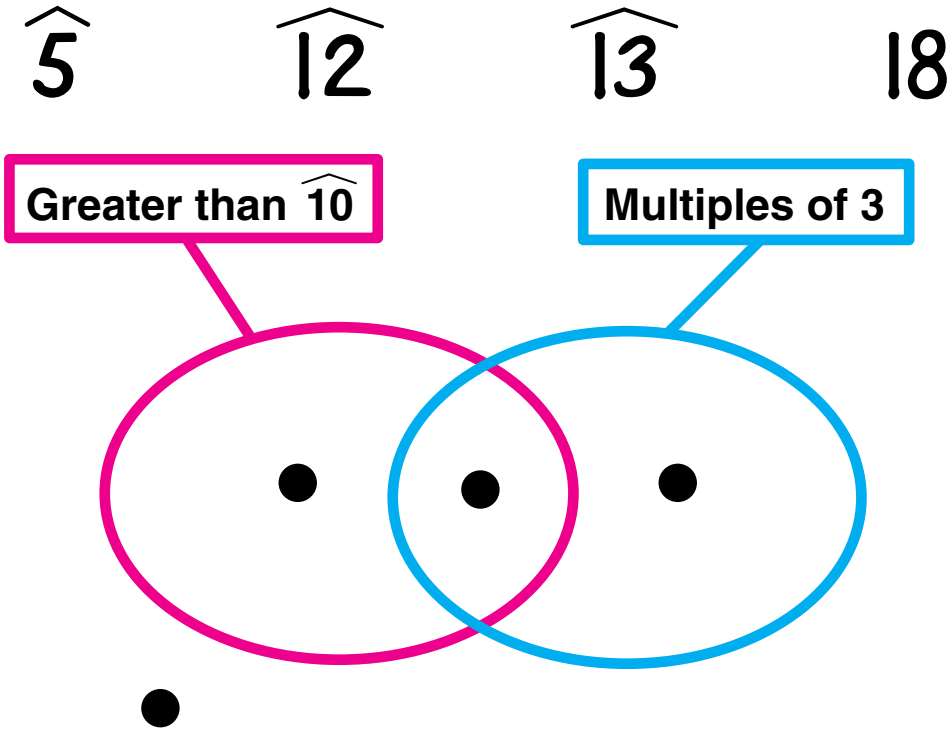
Put each of these numbers in the string picture.

$\widehat{3}$ 4 10 12

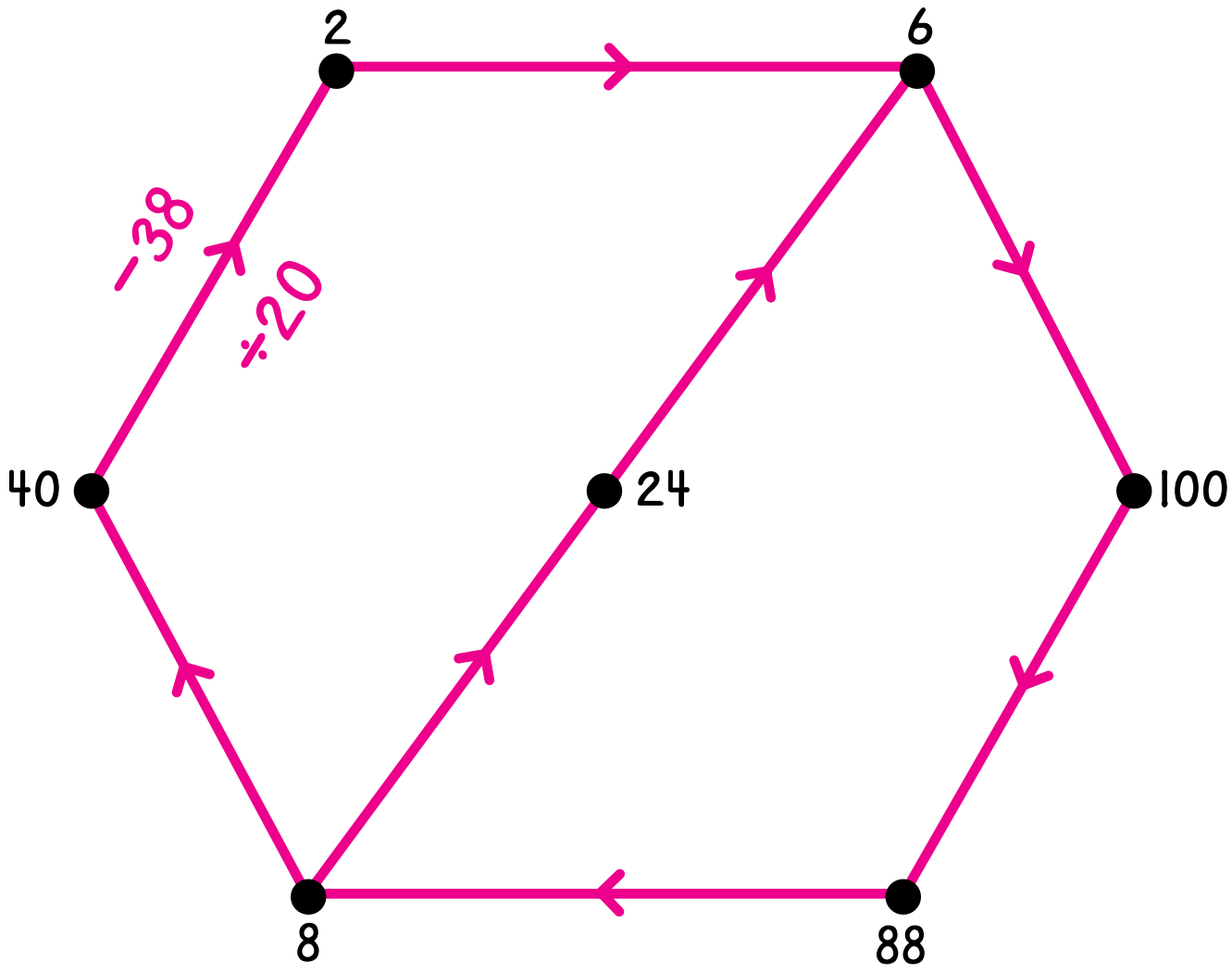


Put each of these numbers in the string picture.

$\widehat{5}$ $\widehat{12}$ $\widehat{13}$ 18



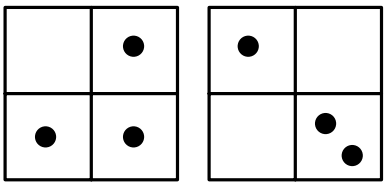
Label each red arrow. Try to label some arrows in two ways.
One is done for you. Many labels are possible.



Pev is a secret number.

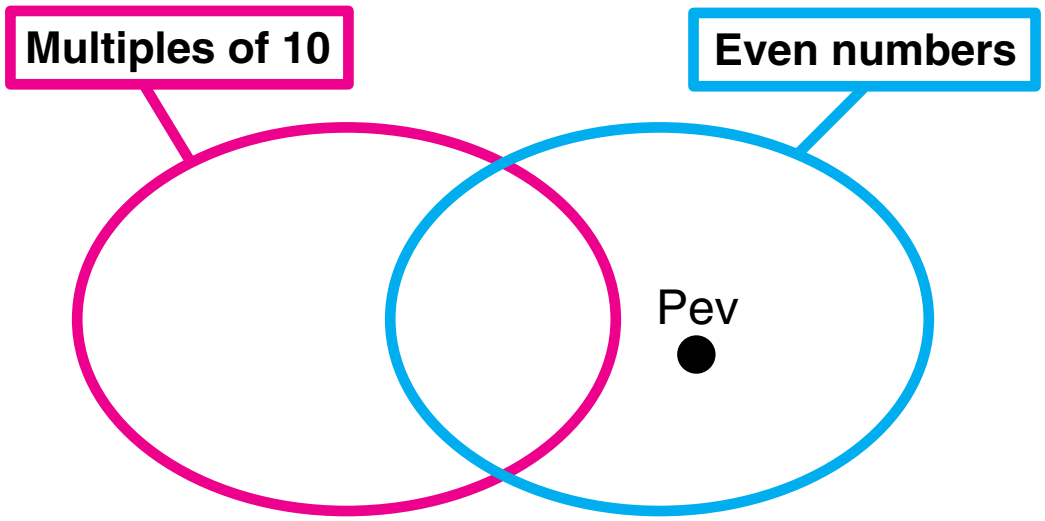
Clue 1

Pev can be shown on these Minicomputer boards by taking off exactly one checker.



Pev could be _____, _____, _____, _____, or _____.

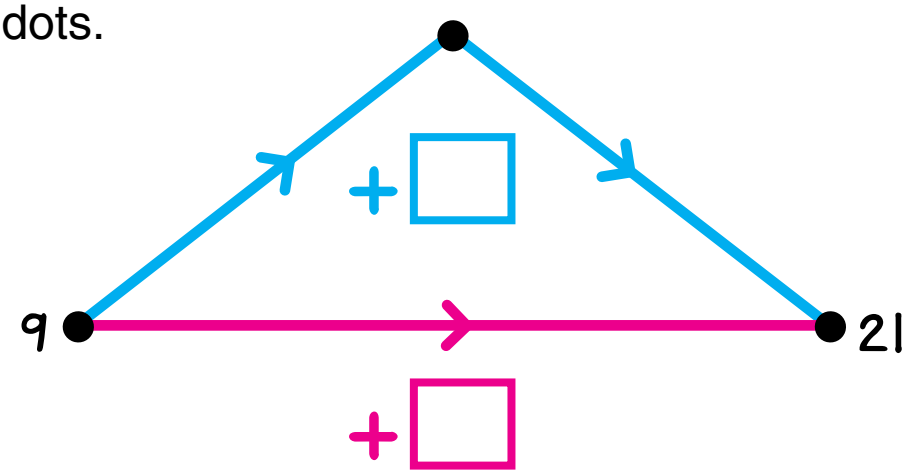
Clue 2

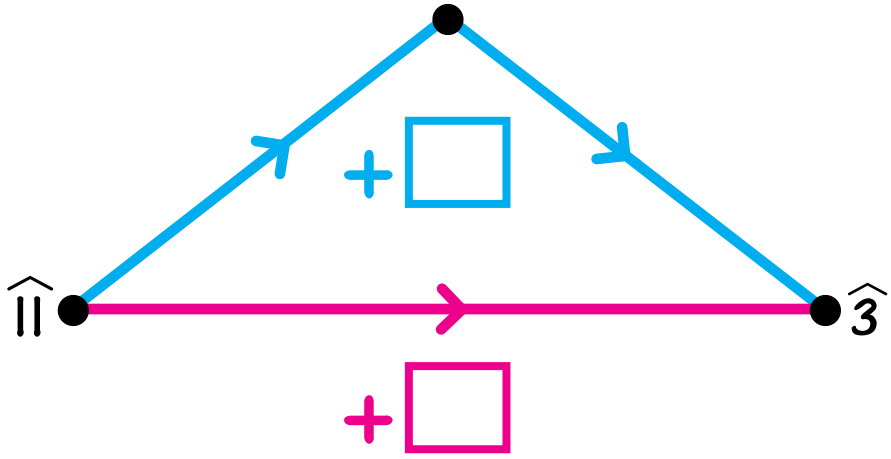


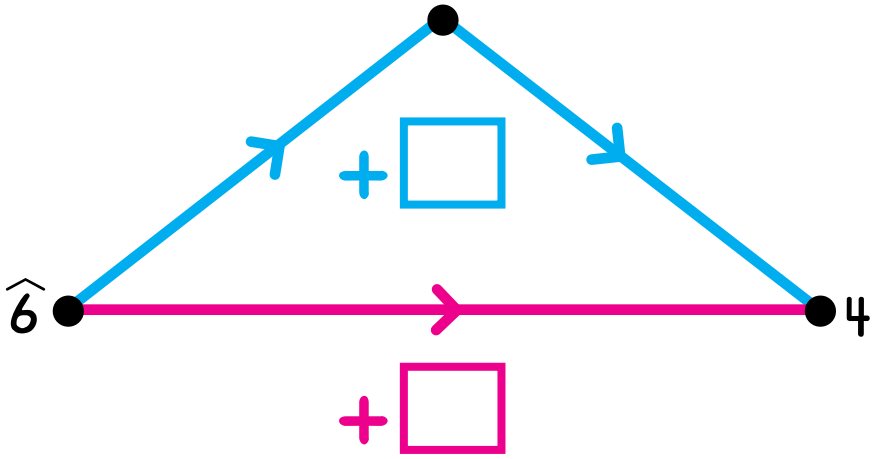
Who is Pev? _____

Fill in the boxes for the arrows.

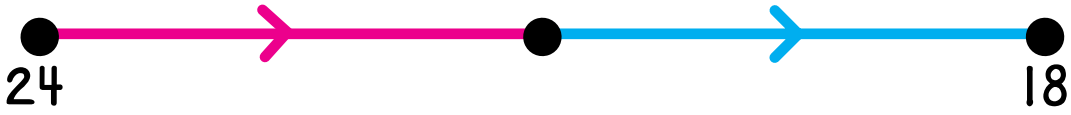
Label the dots.





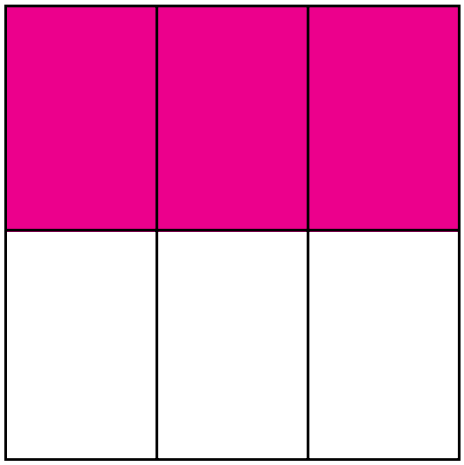


Pair the tags.

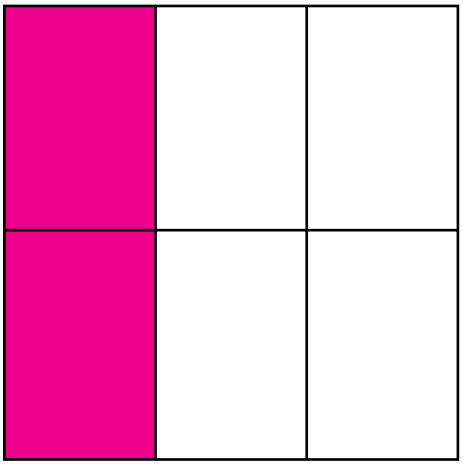


÷6	+10
÷4	−22
÷3	6×
+12	+14
+16	÷2
÷8	3×

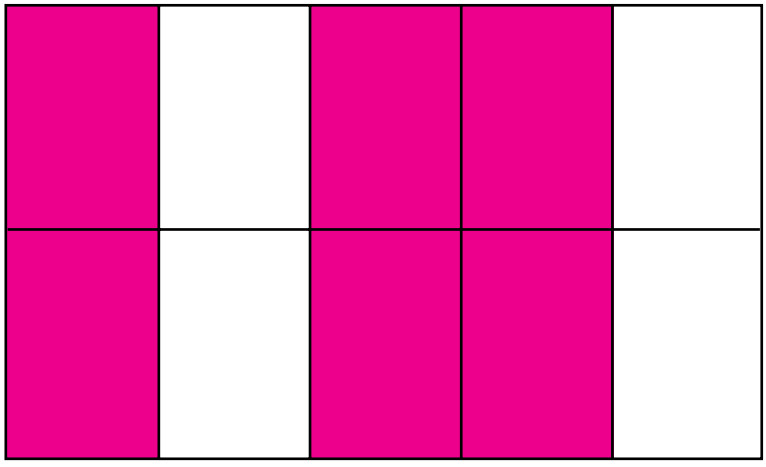
Fill in the boxes to indicate what part of each shape is colored red.



$\frac{\square}{2}$ or $\frac{\square}{6}$

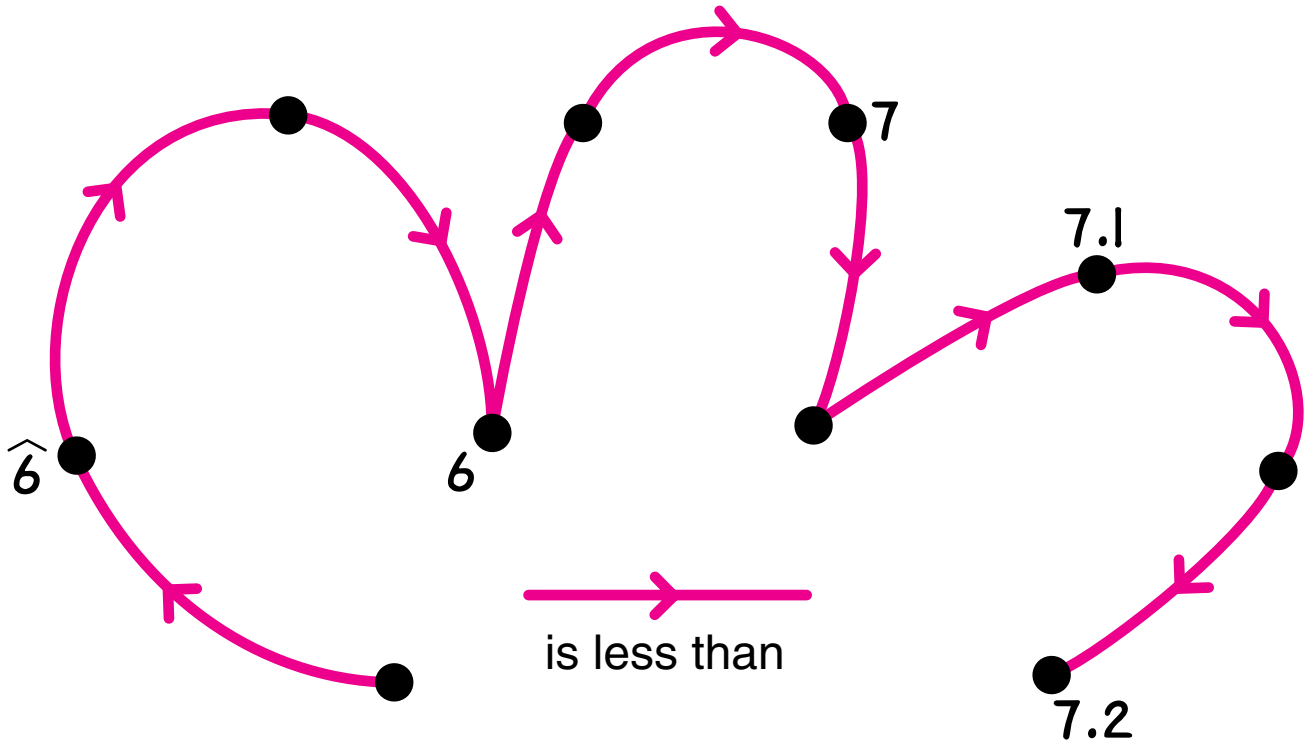


$\frac{\square}{3}$ or $\frac{\square}{6}$



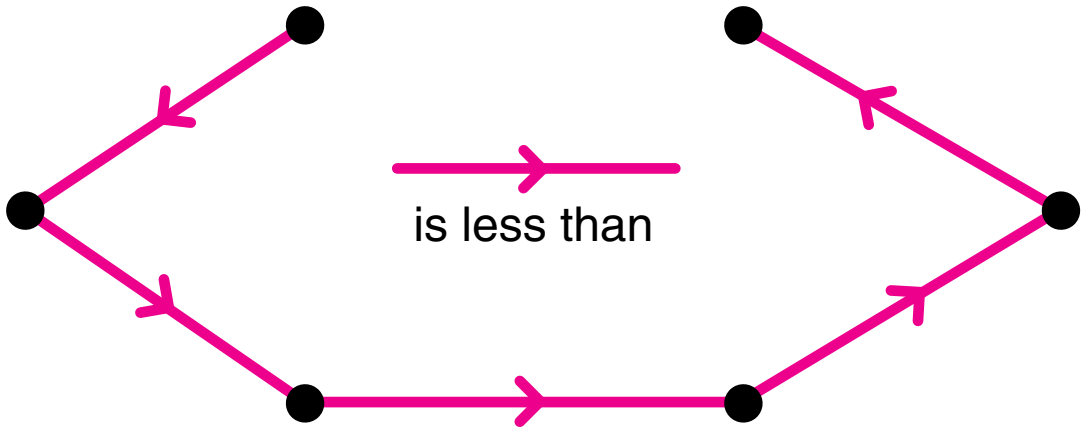
$\frac{\square}{10}$ or $\frac{\square}{5}$

Label the dots.

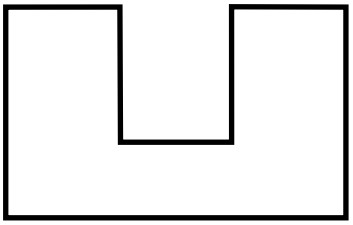


Label the dots with these numbers.

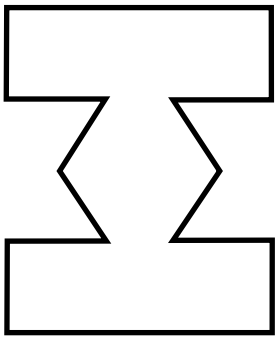
0.7 2.09 0.406 2.9 0.82 2.314



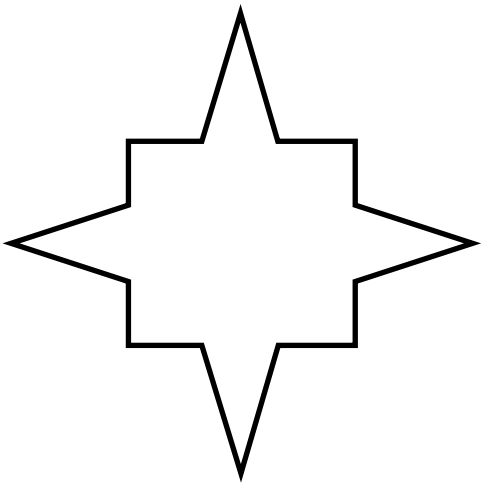
Draw in the lines of symmetry for each shape.



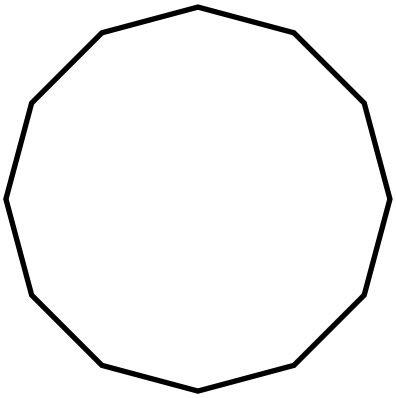
one line of symmetry



two lines of symmetry

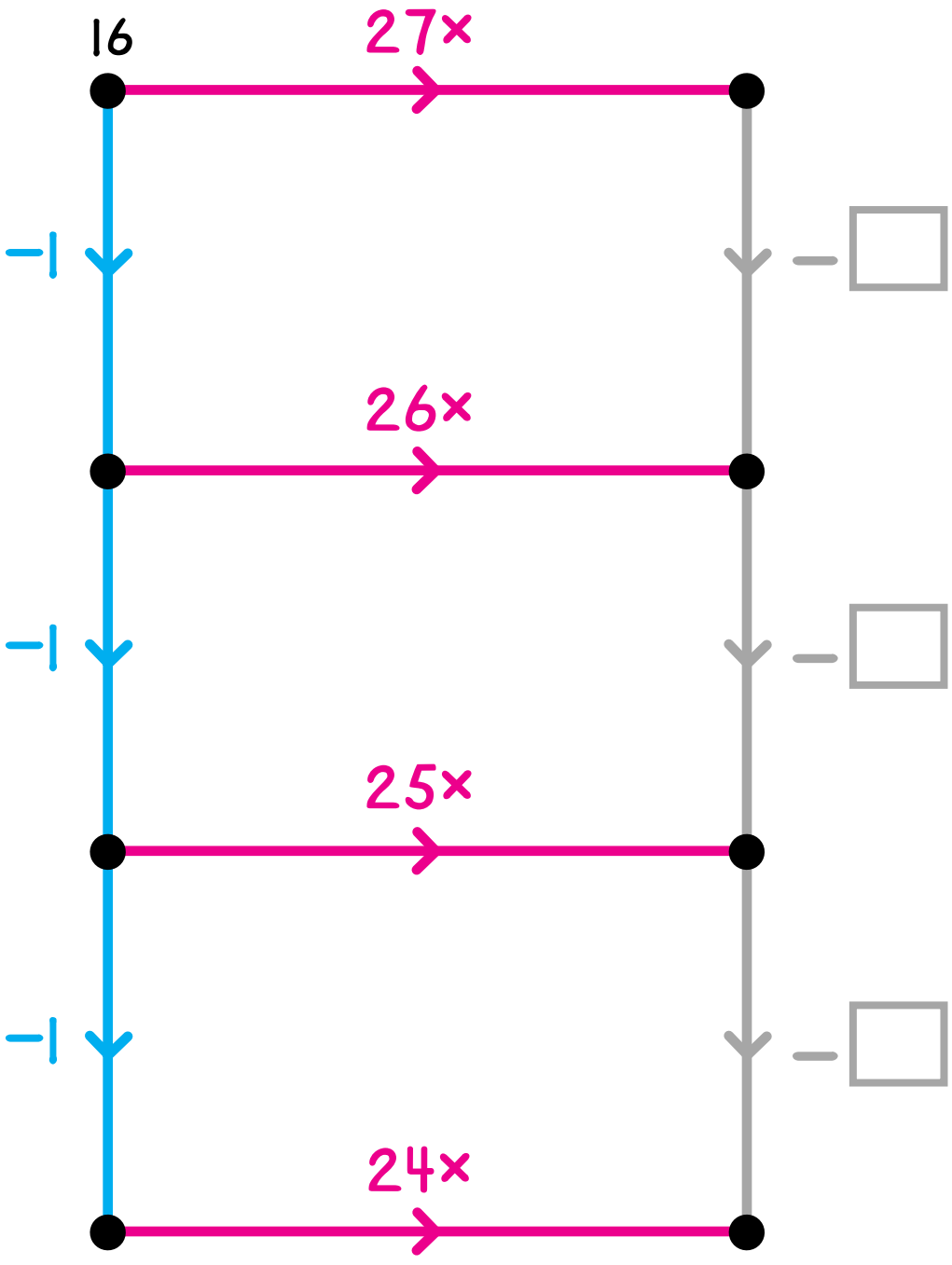


four lines of symmetry



Many lines of symmetry.
Draw **four** of them.

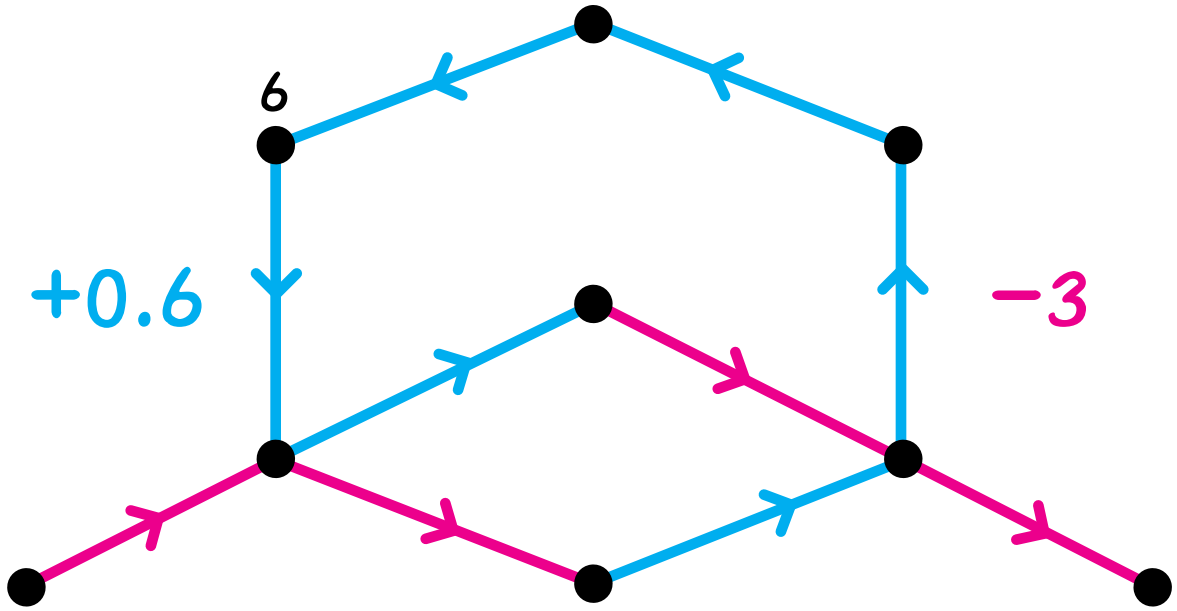
Label the dots and fill in the boxes for the gray arrows.



Goron is a secret number.

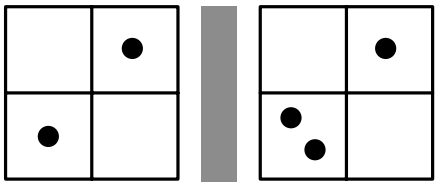
Clue 1

Goron is in this arrow picture. Label the dots.



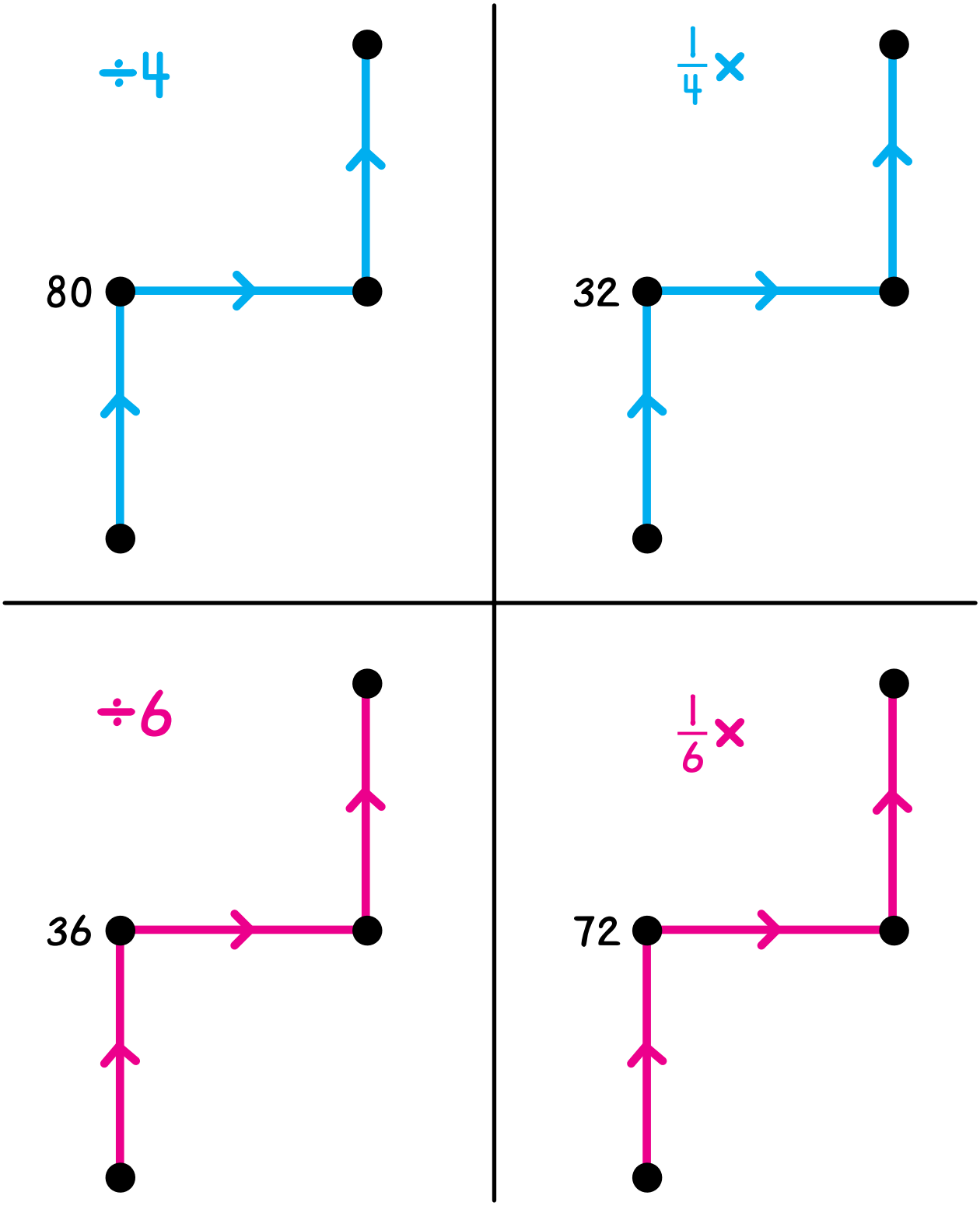
Clue 2

Goron can be put on this Minicomputer by adding exactly one regular checker.

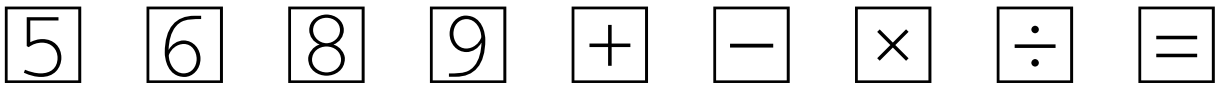


Who is Goron? _____

Label the dots.



Put each number on the display of a calculator using just these keys:



Write the keys in the order you use them. You may use a key more than once.

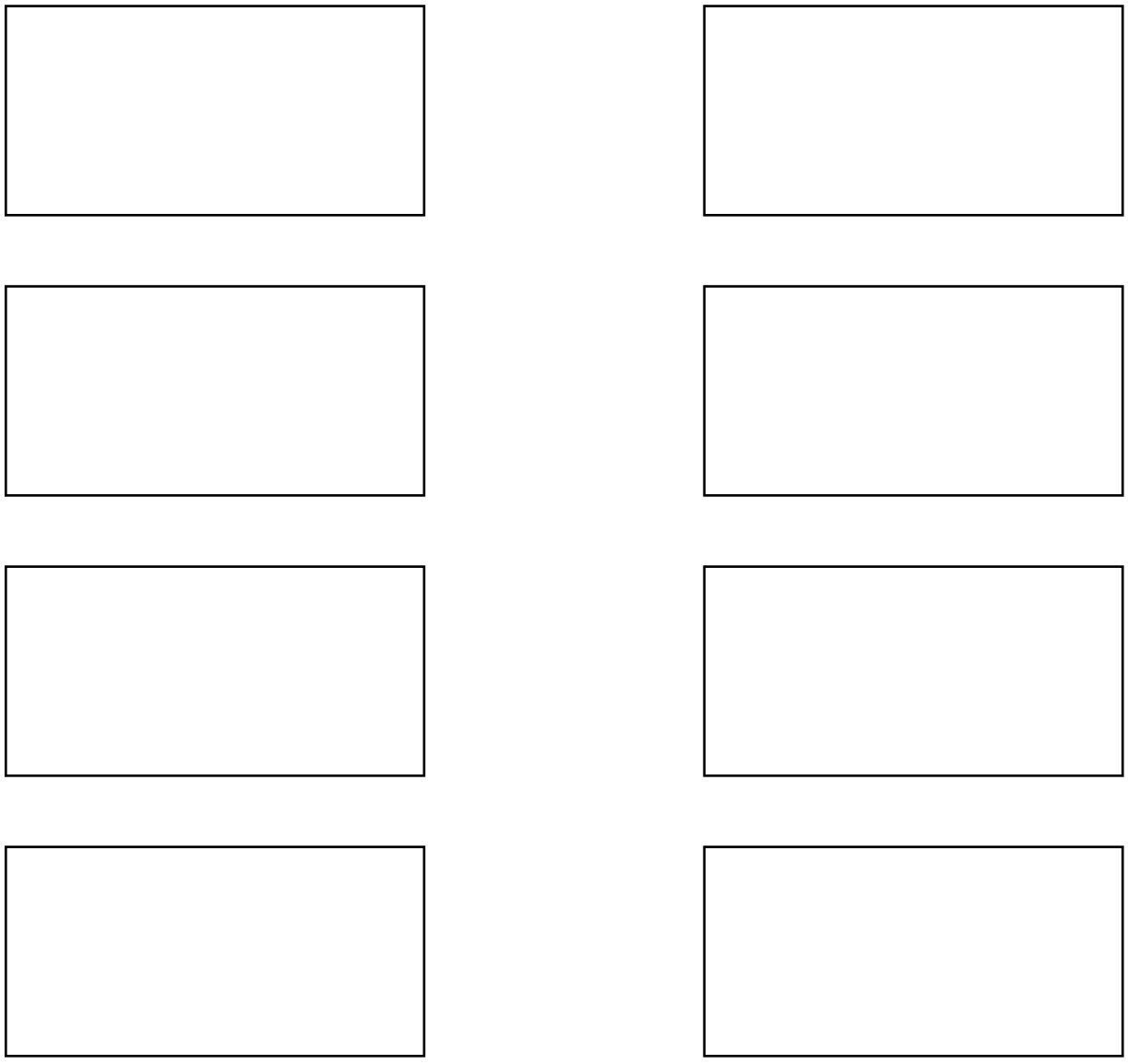
It costs 1¢ each time you press a key. Try to spend less than the amount shown for each number.

_____ 100 [8¢]

_____ 1 000 [13¢]

_____ −7 [10¢]

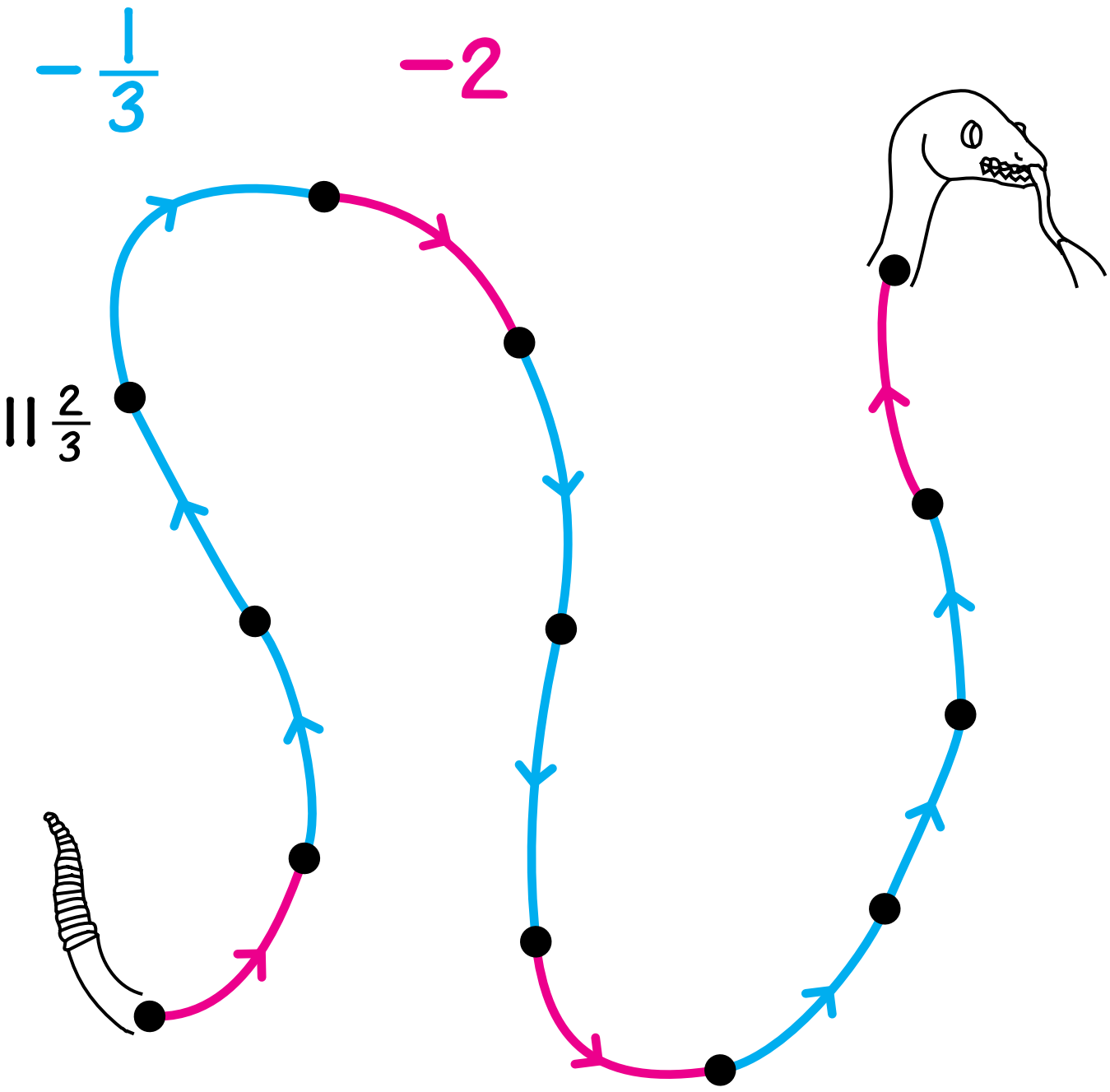
Show how to share fairly eight candy bars among three children. Color Nichole's share red, color Mark's share blue, and leave Jill's share uncolored.



How much does each child receive? _____ candy bars

Complete: $8 \div 3 =$ _____

Label the dots.



The eraser gremlin has erased the decimal point in each result.
Put in the decimal points so that the number sentences are correct.

$$24.74 + 3.86 = 286$$

$$6.062 + 490.4 + 16.758 = 51322$$

$$36.12 - 4.92 = 312$$

$$86 - 2.694 = 83306$$

$$18.45 \times 2.18 = 40221$$

$$7.4 \times 12.39 = 91686$$

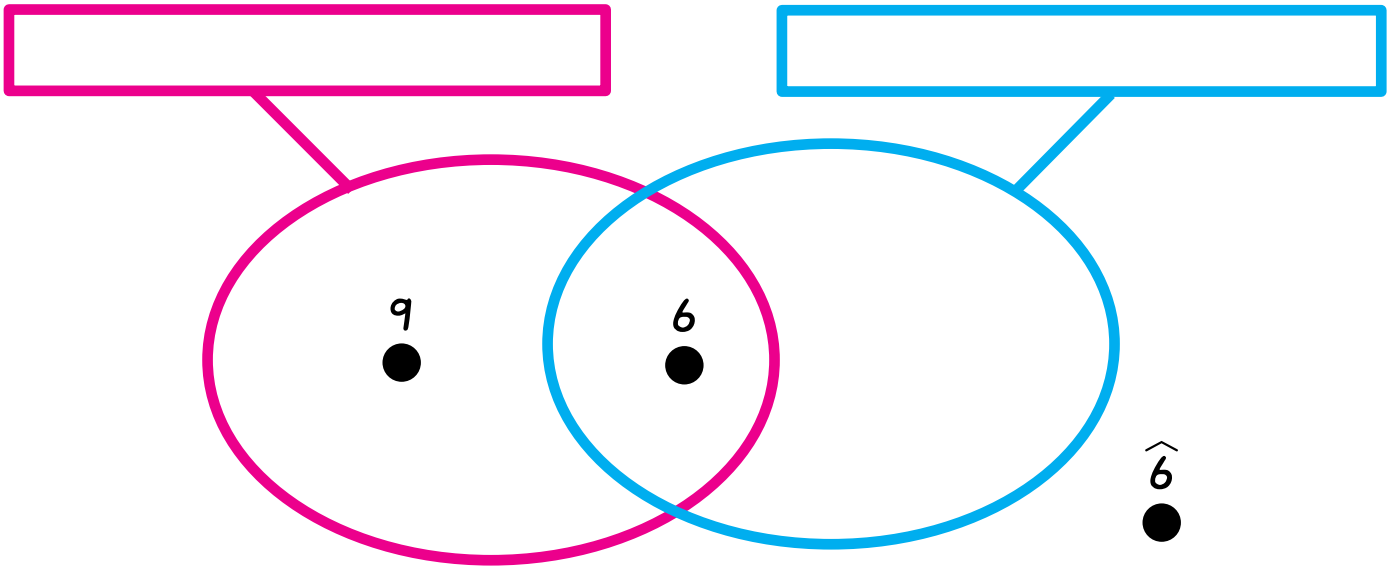
The red label is one of these:

Even numbers
Multiples of 3
Positive divisors of 18
Positive divisors of 30
Less than 8
Greater than 10
Square numbers

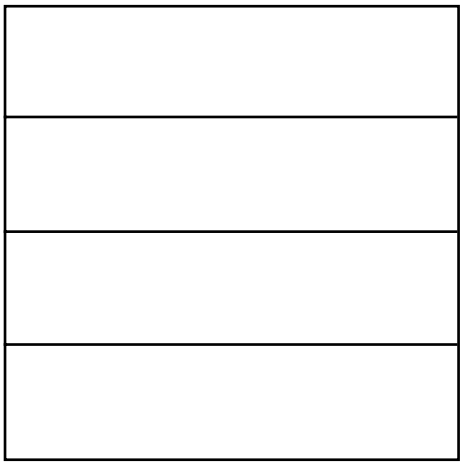
The blue label is one of these:

Even numbers
Multiples of 3
Positive divisors of 18
Positive divisors of 30
Less than 8
Greater than 10
Square numbers

Label the strings.

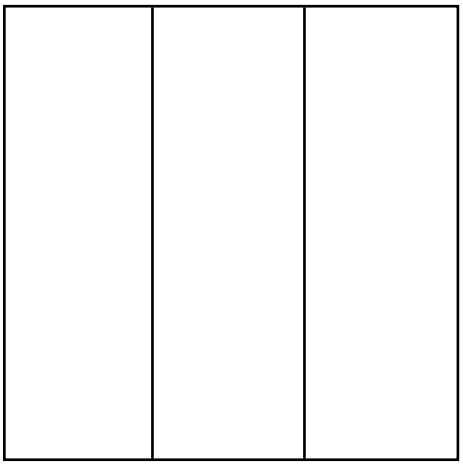


Shade one-fourth of Amelia's cake.



$\frac{1}{4}$

Shade two-thirds of Sara's cake.



$\frac{2}{3}$

Make Sara's cuts on Amelia's cake.

Make Amelia's cuts on Sara's cake.

Now use the pictures to solve this problem.

$$\frac{1}{4} + \frac{2}{3} = \_\_\_\_\_$$

Mimi is a secret number.

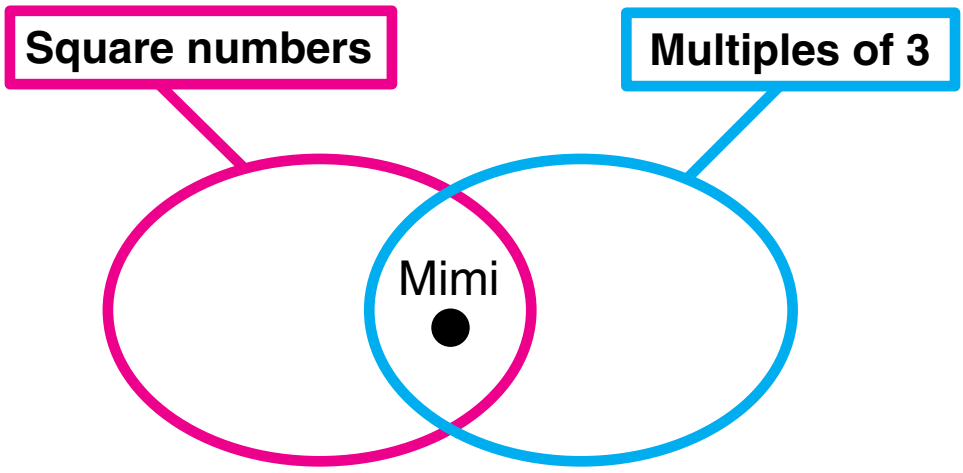
Clue 1

Mimi can be put on this Minicomputer by adding exactly one of these checkers.

Mimi could be _____, _____, _____, _____, _____, _____, _____, or _____.

Clue 2

Mimi is in this string picture.

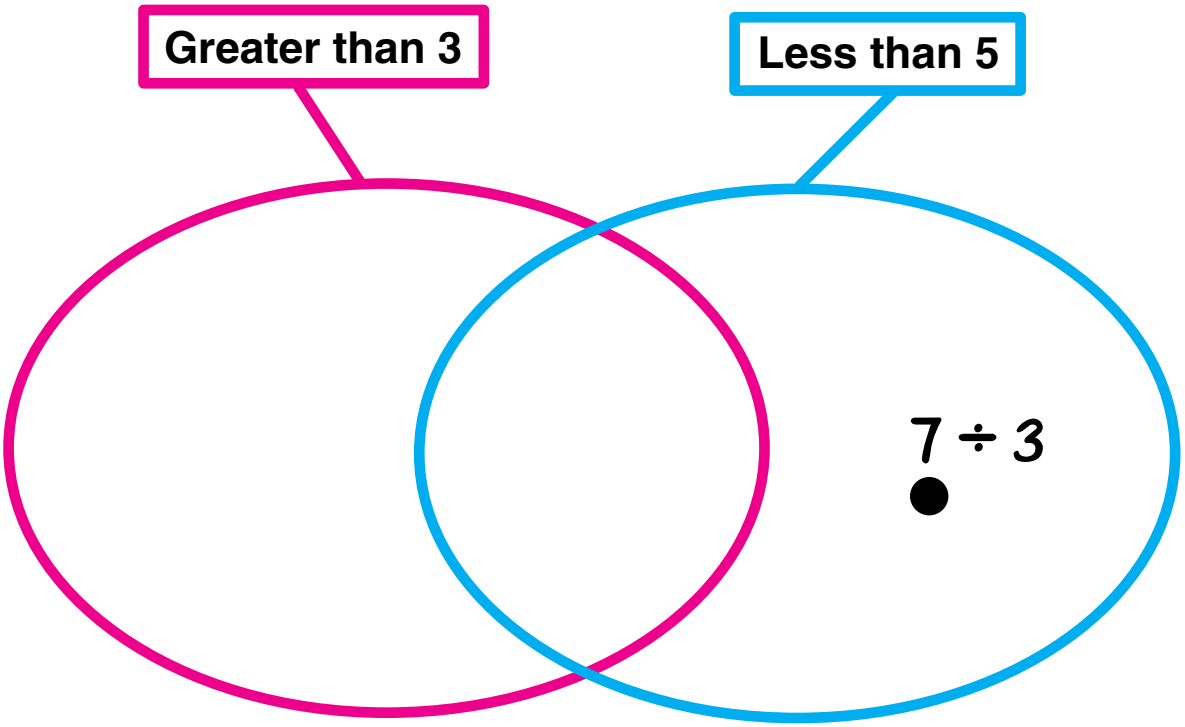


Who is Mimi? _____

Put these numbers in the string picture. One is done for you.

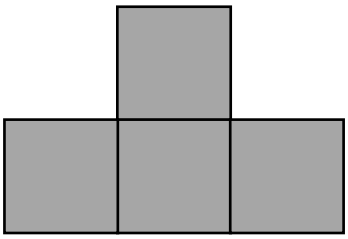
$7 \div 3$ $18 \div 4$ $13 \div 2$ $19 \div 7$

$\frac{7}{2}$ $\frac{32}{5}$ $\frac{28}{10}$



Draw the lines of symmetry for this four-square shape.

How many lines of symmetry? _____



Move one square in the above shape to get a four-square shape with

… two lines of symmetry

… four lines of symmetry

… no line of symmetry

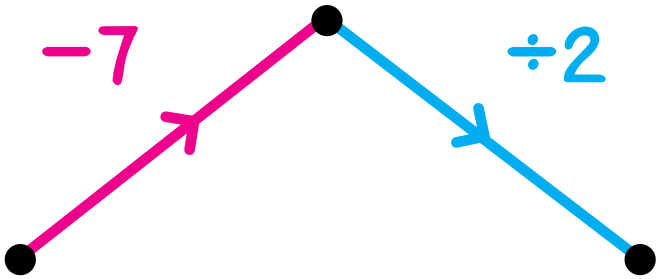
Add one square to the above shape to get a five-square shape with

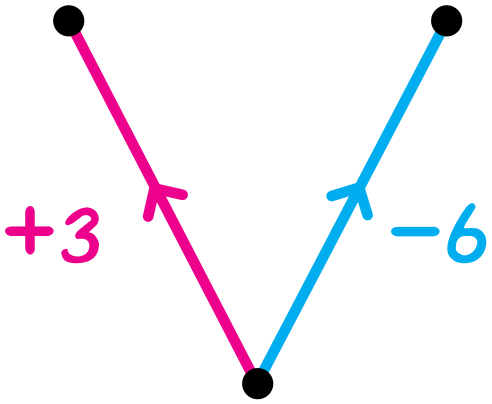
… one line of symmetry

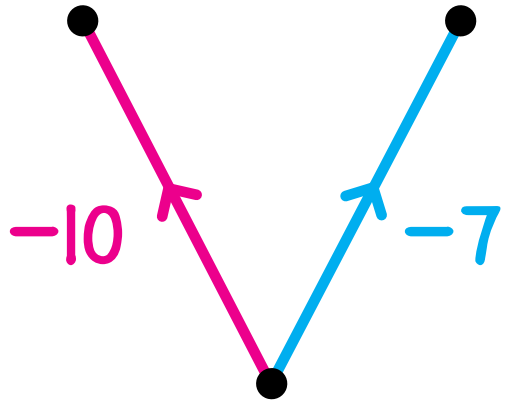
… two or more lines of symmetry

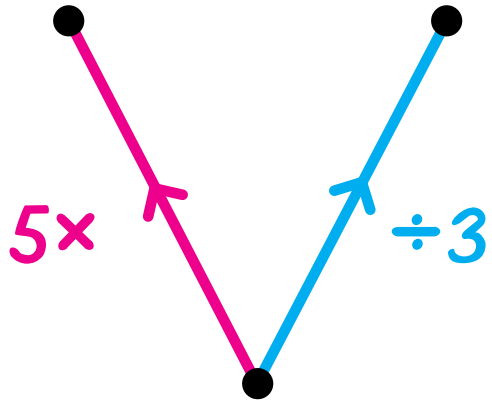
… no line of symmetry

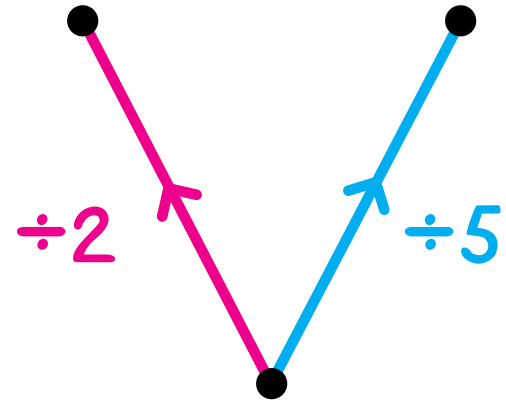
10 is the least number for a dot in each arrow picture.
Find 10 in each picture. Label all of the dots.



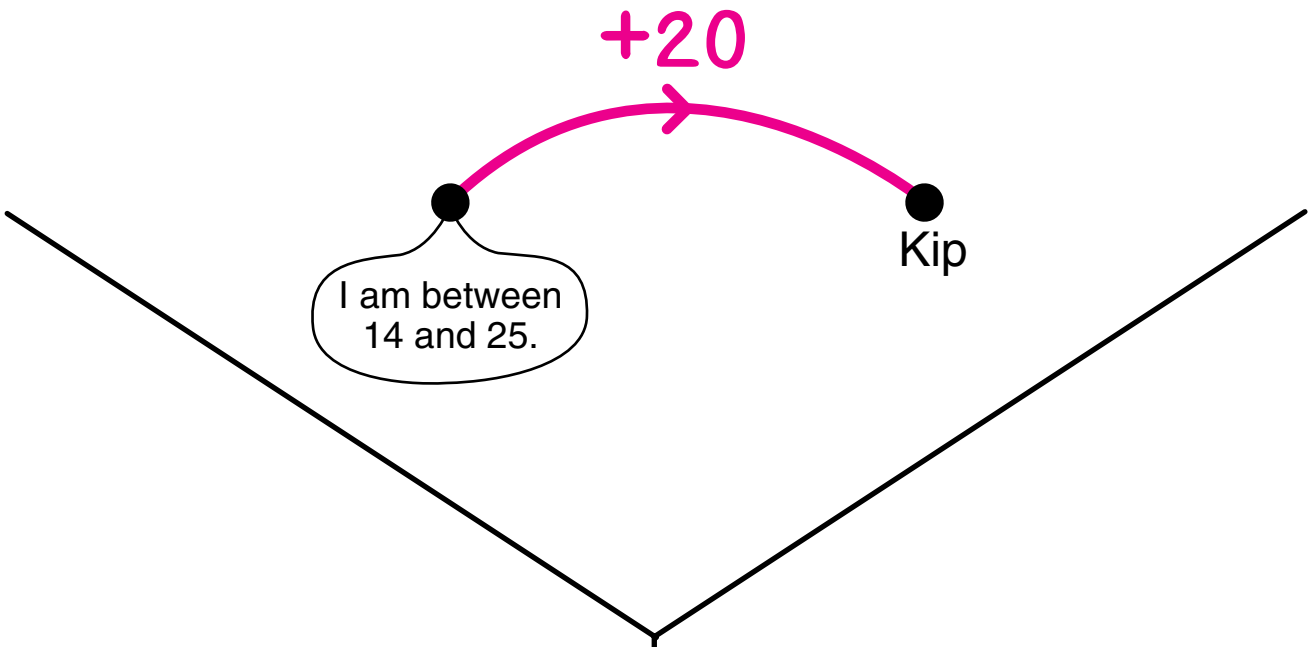




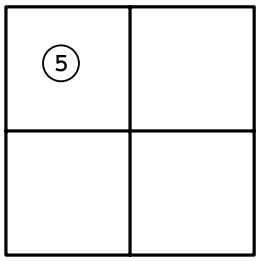




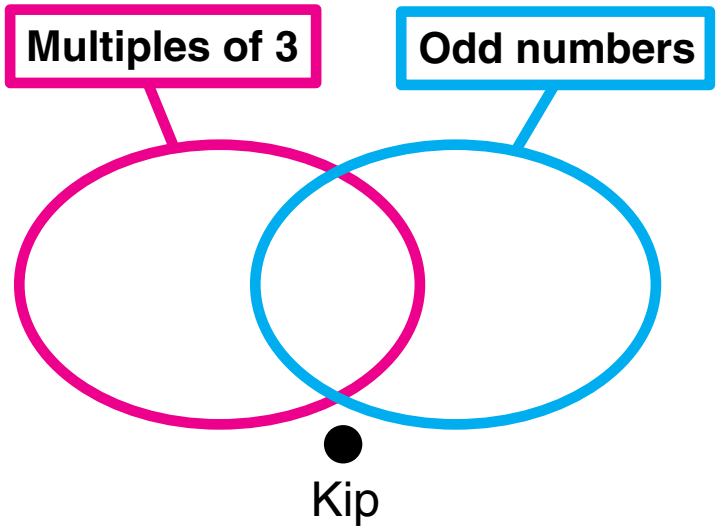
Kip is a whole number.



Kip can be put on this ones board of the Minicomputer by adding exactly one negative checker.

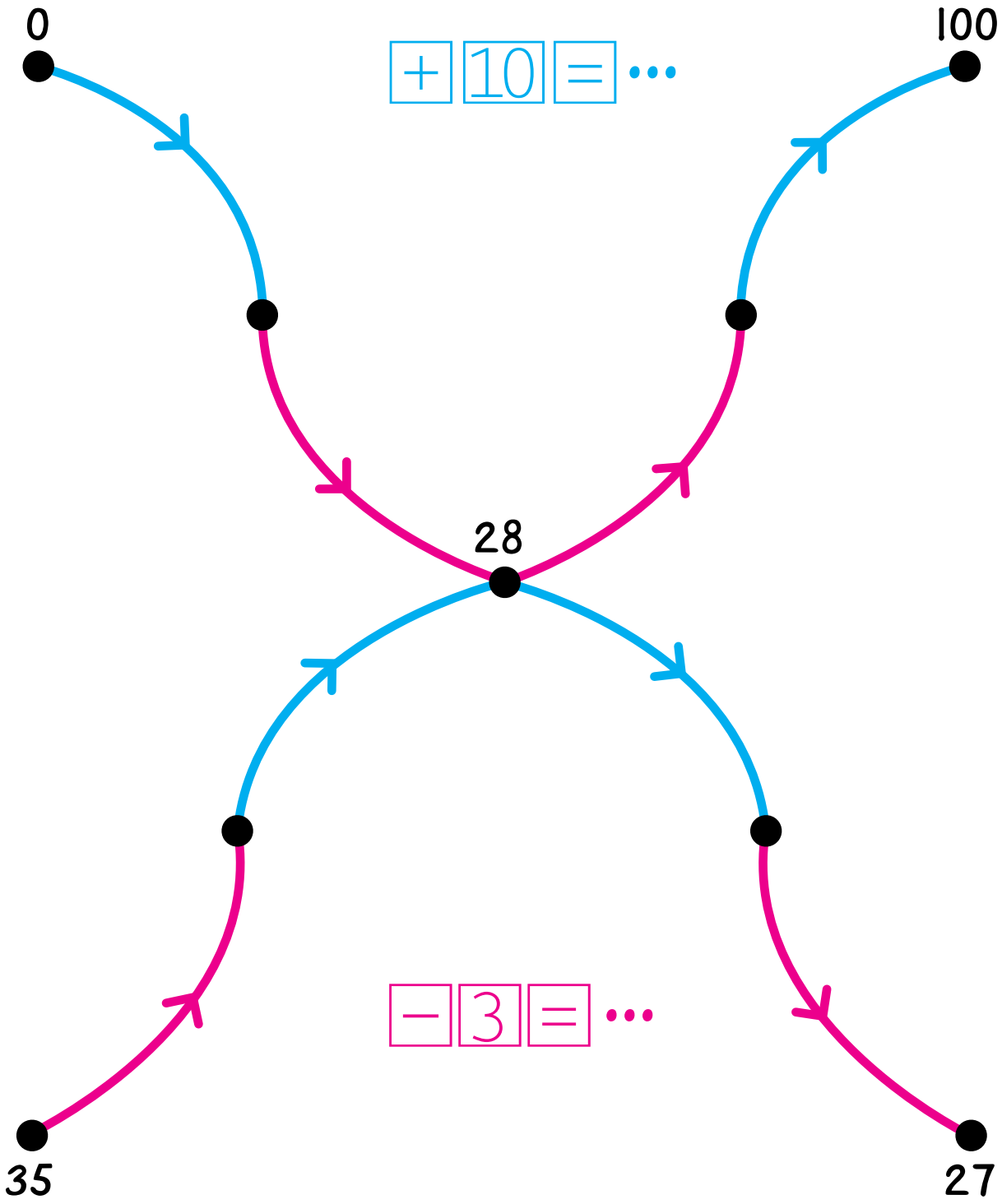


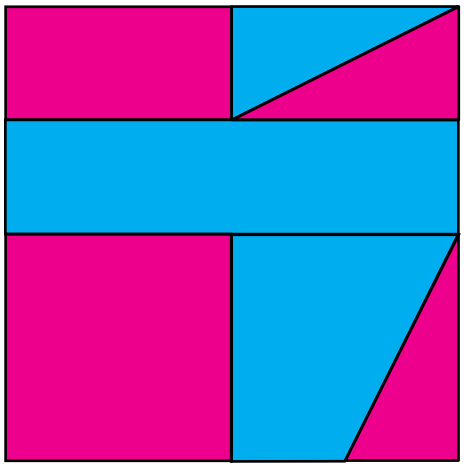
Kip is in this string picture.

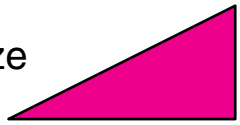


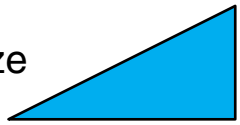
Who is Kip? _____

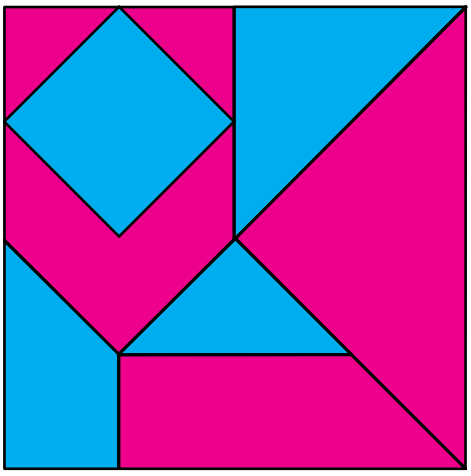
Label the dots. Many labels are possible for each dot.

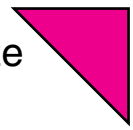


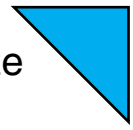


How many triangles of this size  could fit into the red region? _____

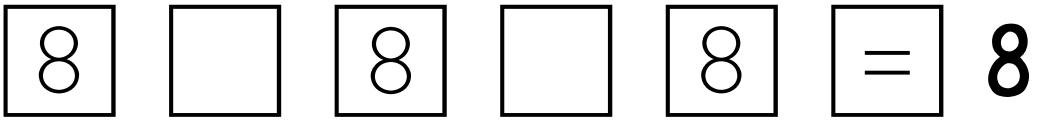
How many triangles of this size  could fit into the blue region? _____

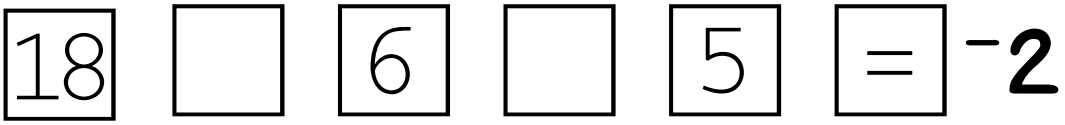


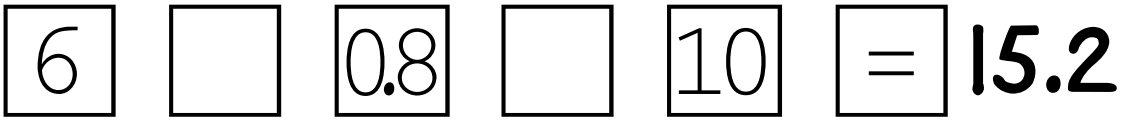
How many triangles of this size  could fit into the red region? _____

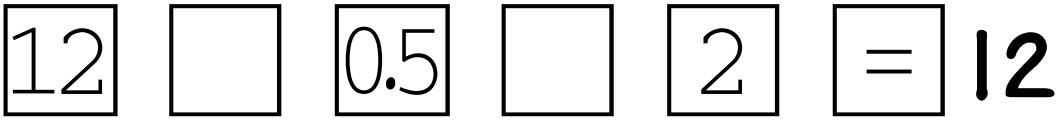
How many triangles of this size  could fit into the blue region? _____

Put one of these symbols: **+, −, ×, ÷** in each blank box to make the calculator sentence true. A symbol may be used twice in one sentence.









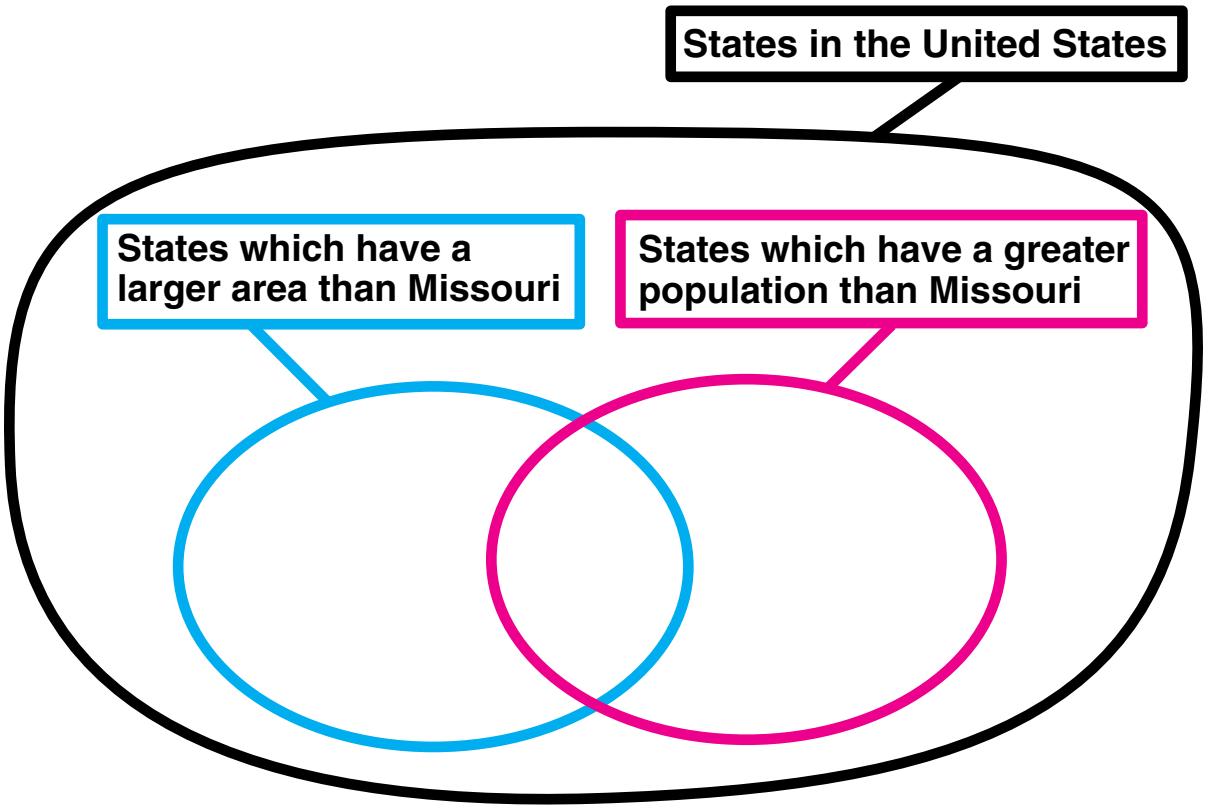
There are 50 states in the United States. Missouri is one of them. None of the other 49 states has exactly the same area or the same population as Missouri.

Exactly 12 states have both a greater population than Missouri (in 1990) and a smaller area than Missouri.

Exactly 14 states have a greater population than Missouri.

Exactly 33 states (including Missouri) do not have a larger area than Missouri.

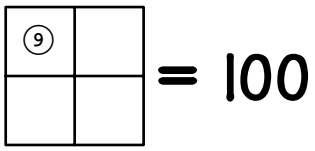
Write the number of states in each region.

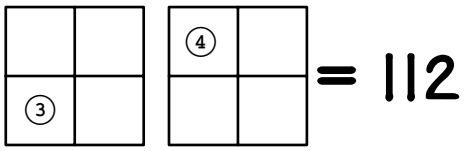


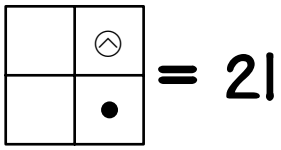
How many states have both a greater population and a larger area than Missouri? _____

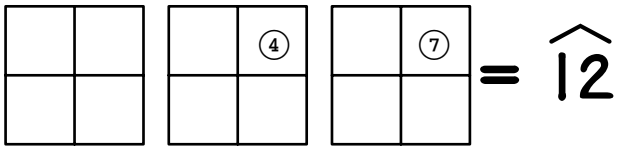
How many states have a larger area than Missouri? _____

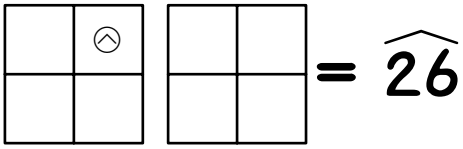
Put each number on the Minicomputer by adding exactly one of these checkers.

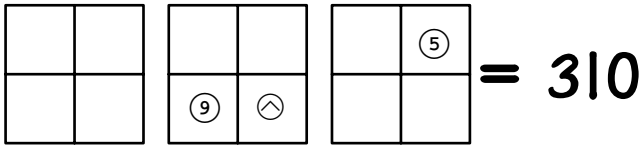


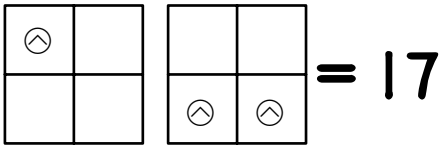


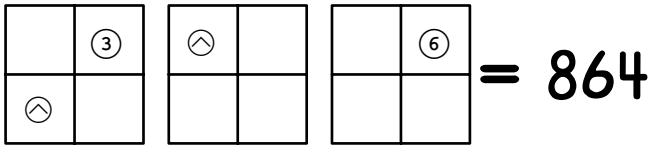












Fid is a secret number.

Clue 1

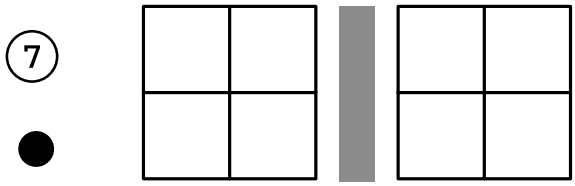
Fid can be written using each of these symbols exactly once.

0.6 ×) 5 + (3

Fid could be ____, ____, ____, ____, ____, or ____.

Clue 2

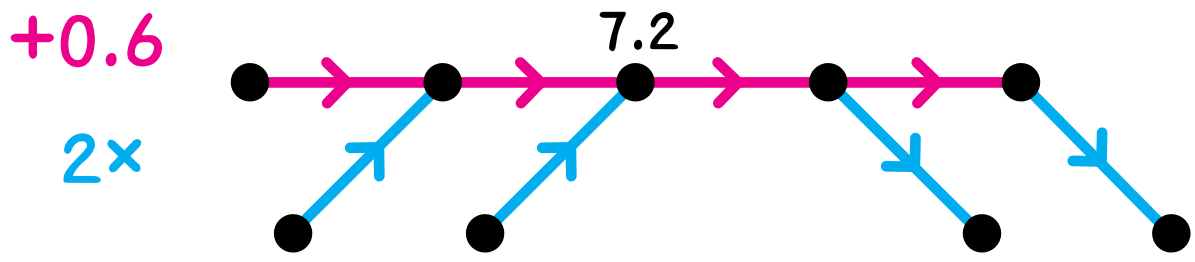
Fid can be put on this Minicomputer with exactly these two checkers.



Fid could be ____, ____, ____, or ____.

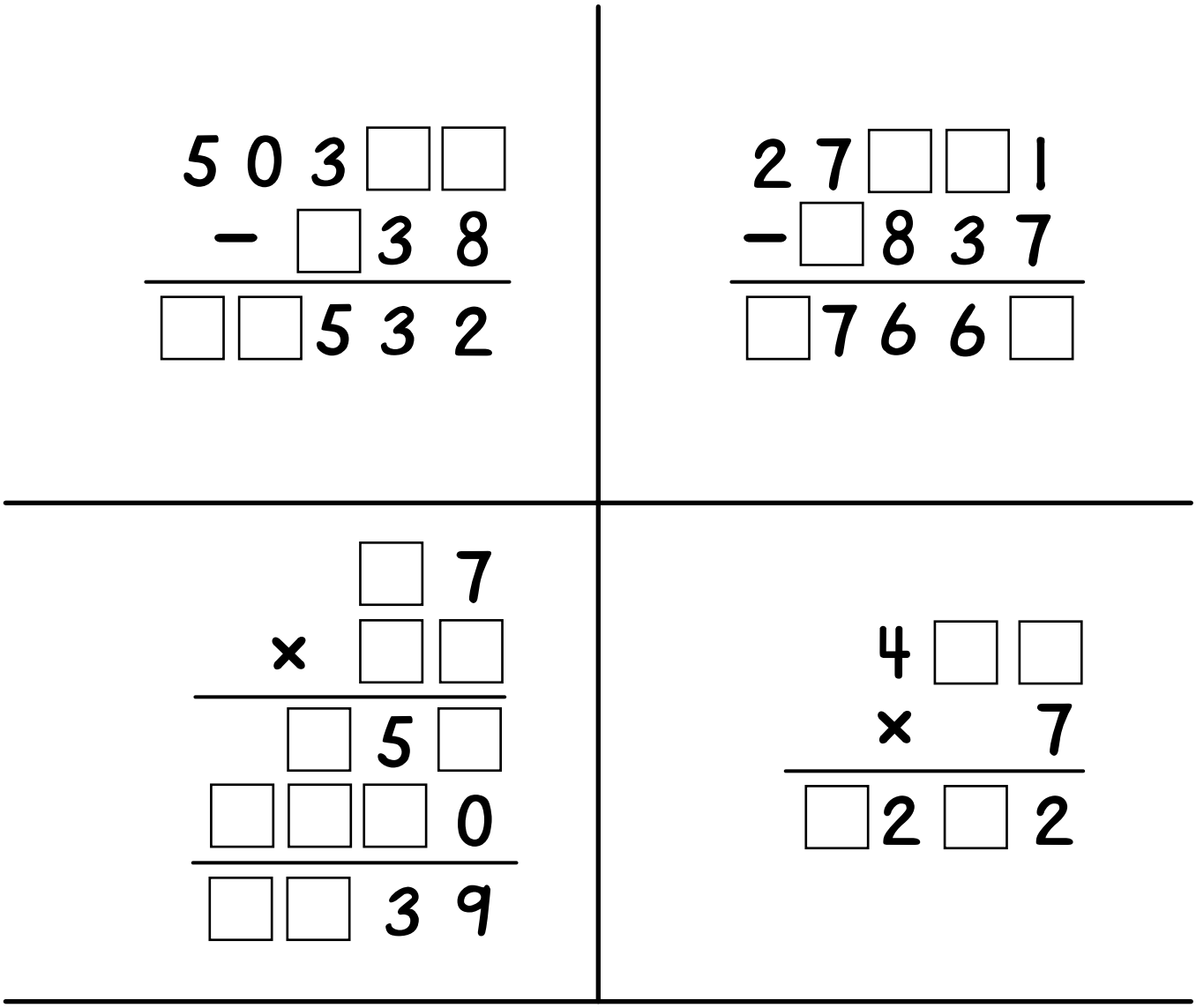
Clue 3

Fid is in this arrow picture.



Who is Fid? _____

Put a single digit in each box to make the calculations correct.



□ □ 4 ÷ 3 = 5 □

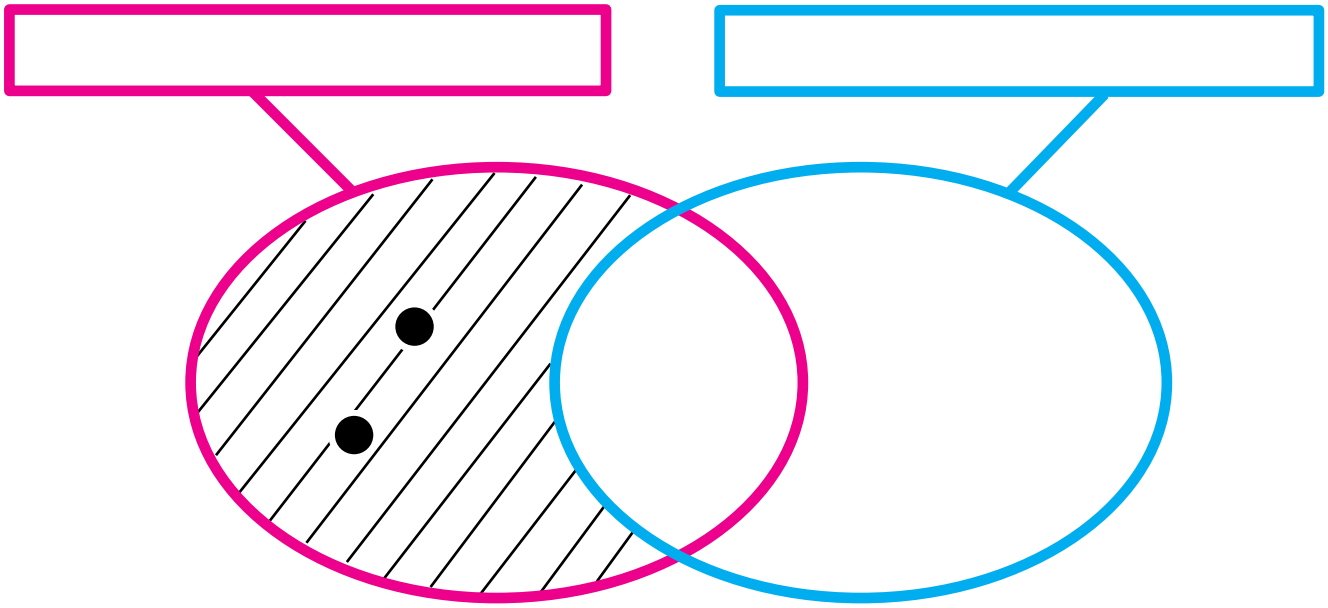
The red label is one of these:

Multiples of 2
Multiples of 3
Odd numbers
Positive prime numbers
Positive divisors of 18
Positive divisors of 32

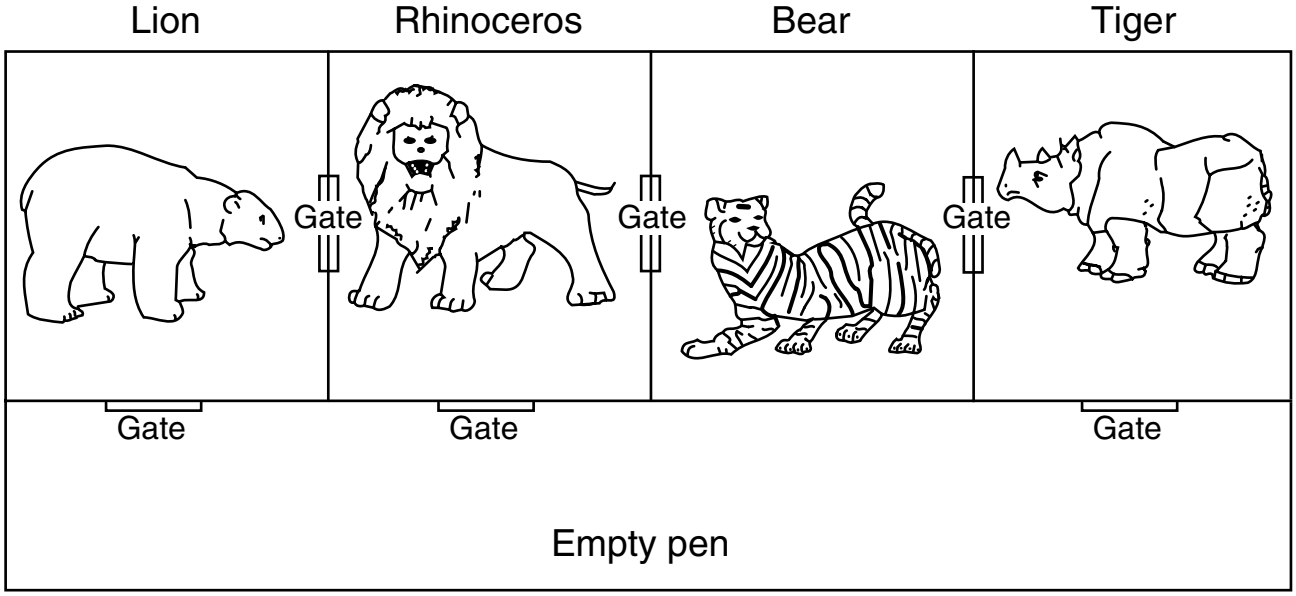
The blue label is one of these:

Multiples of 2
Multiples of 3
Odd numbers
Positive prime numbers
Positive divisors of 18
Positive divisors of 32

Label the strings.



As a zookeeper, you have just returned from a two-month research trip in the Amazon River jungle studying the feeding habits of piranhas. Your assistant at the zoo left the animals in the wrong cages. Your job is to return each animal to the proper cage. You must never allow two animals to be in the same cage or pen.



Record your moves. You may not need all 10 moves.

1. I moved the _____ from _____ to _____.
2. I moved the _____ from _____ to _____.
3. I moved the _____ from _____ to _____.
4. I moved the _____ from _____ to _____.
5. I moved the _____ from _____ to _____.
6. I moved the _____ from _____ to _____.
7. I moved the _____ from _____ to _____.
8. I moved the _____ from _____ to _____.
9. I moved the _____ from _____ to _____.
10. I moved the _____ from _____ to _____.