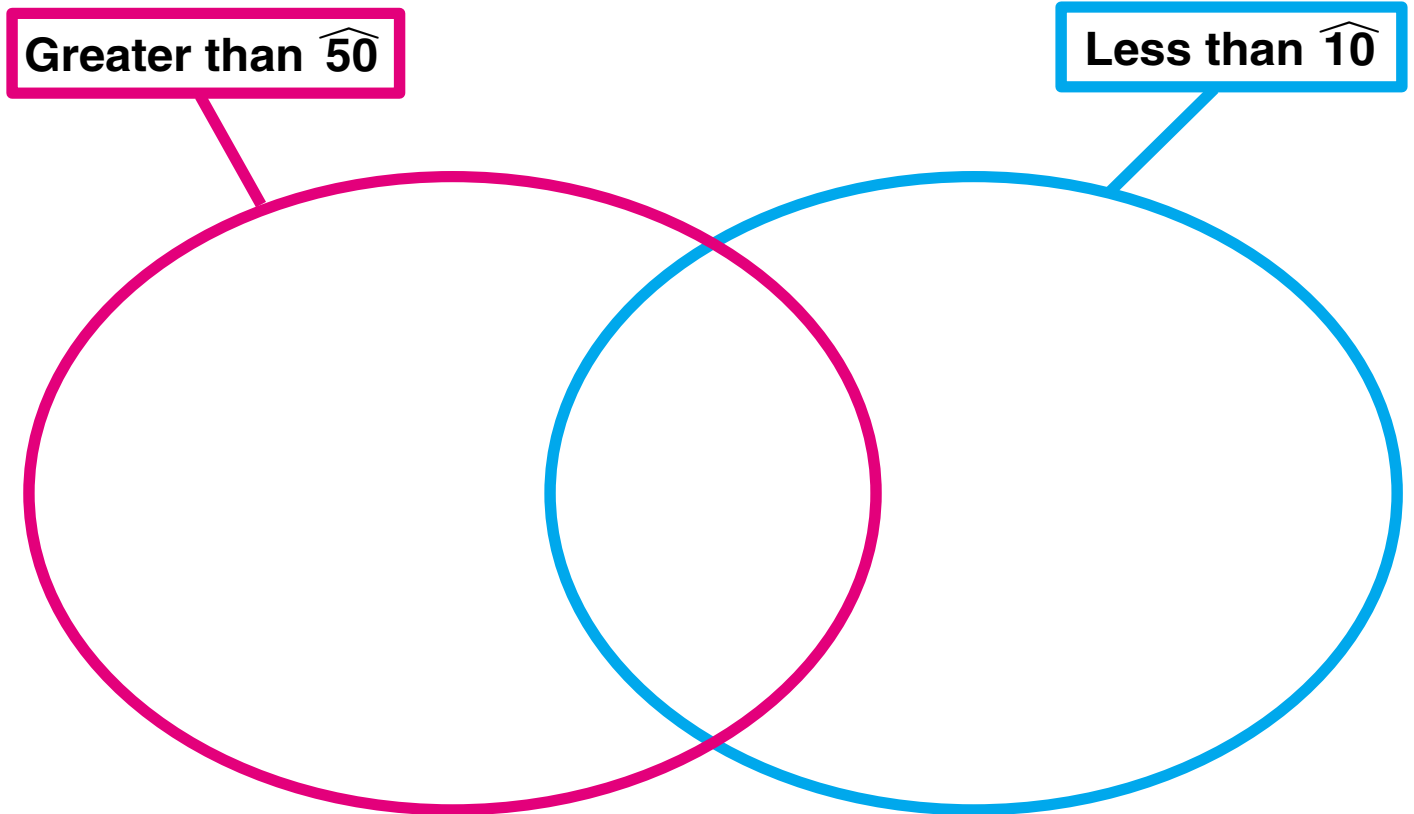


Name \_\_\_\_\_

Set  
of  
Problems #5

Put these numbers in this string picture.

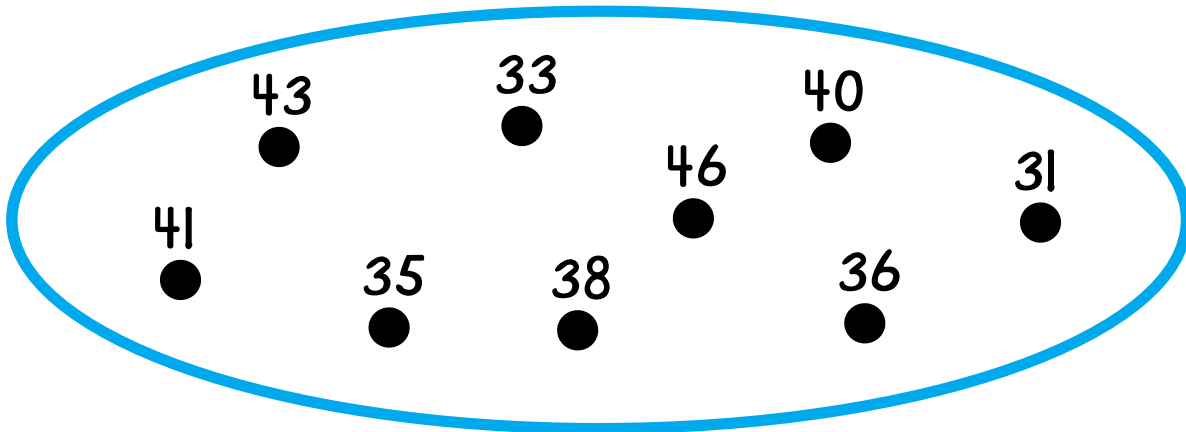
10    $\widehat{12}$     $\widehat{50}$     $\widehat{8}$     $\widehat{75}$



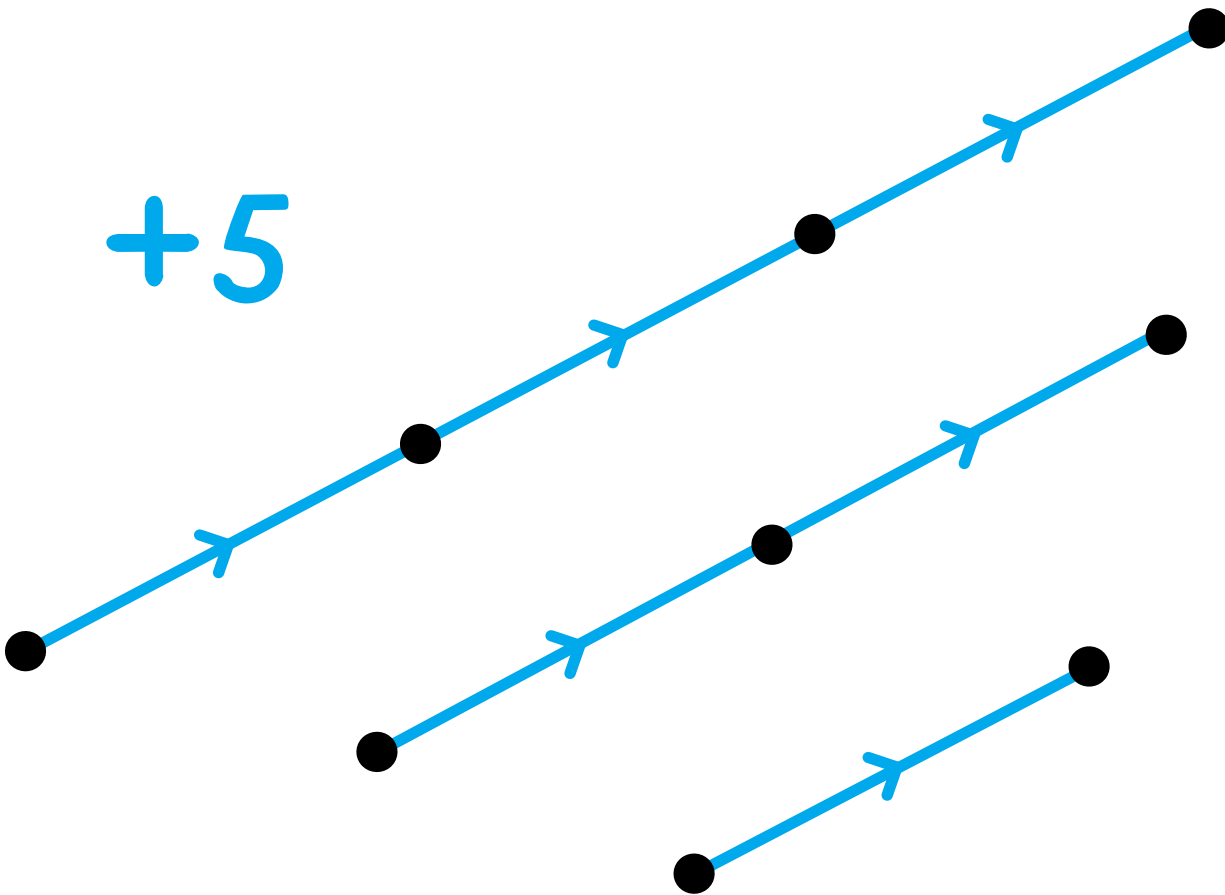
Put several more numbers of your choice in the picture.

Did you put any number outside both strings? \_\_\_\_\_

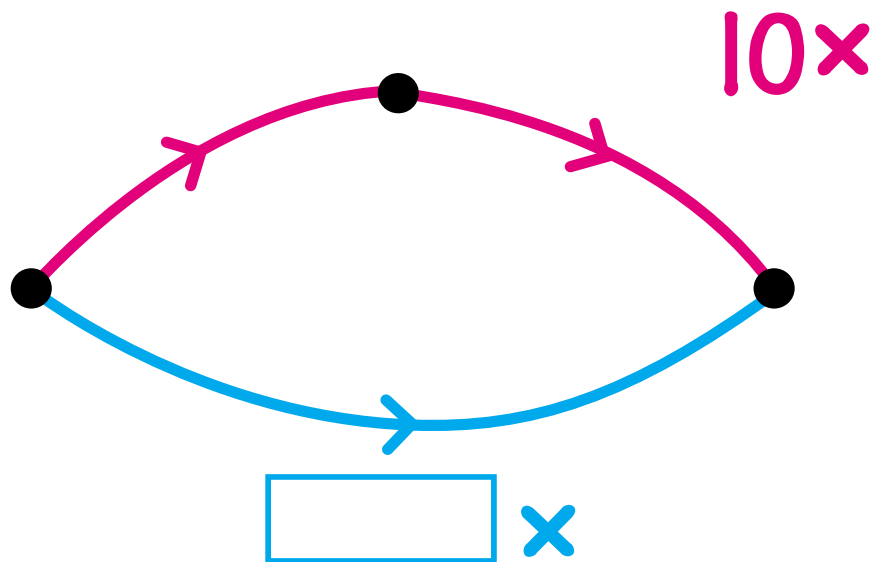
Correctly place these numbers in this arrow picture.



+5



Label the blue arrow. Then use the arrow picture to help you do the calculations below.



$$10 \times 41 = \boxed{\phantom{000}}$$

$$100 \times 41 = \boxed{\phantom{000}}$$

$$100 \times 182 = \boxed{\phantom{000}}$$

$$100 \times \boxed{\phantom{00}} = 2\,500$$

$$100 \times \boxed{\phantom{00}} = 9\,000$$

$$10 \times 0.3 = \boxed{\phantom{000}}$$

$$100 \times 0.3 = \boxed{\phantom{000}}$$

The dots on the number line are for four of these numbers.

7925

7860

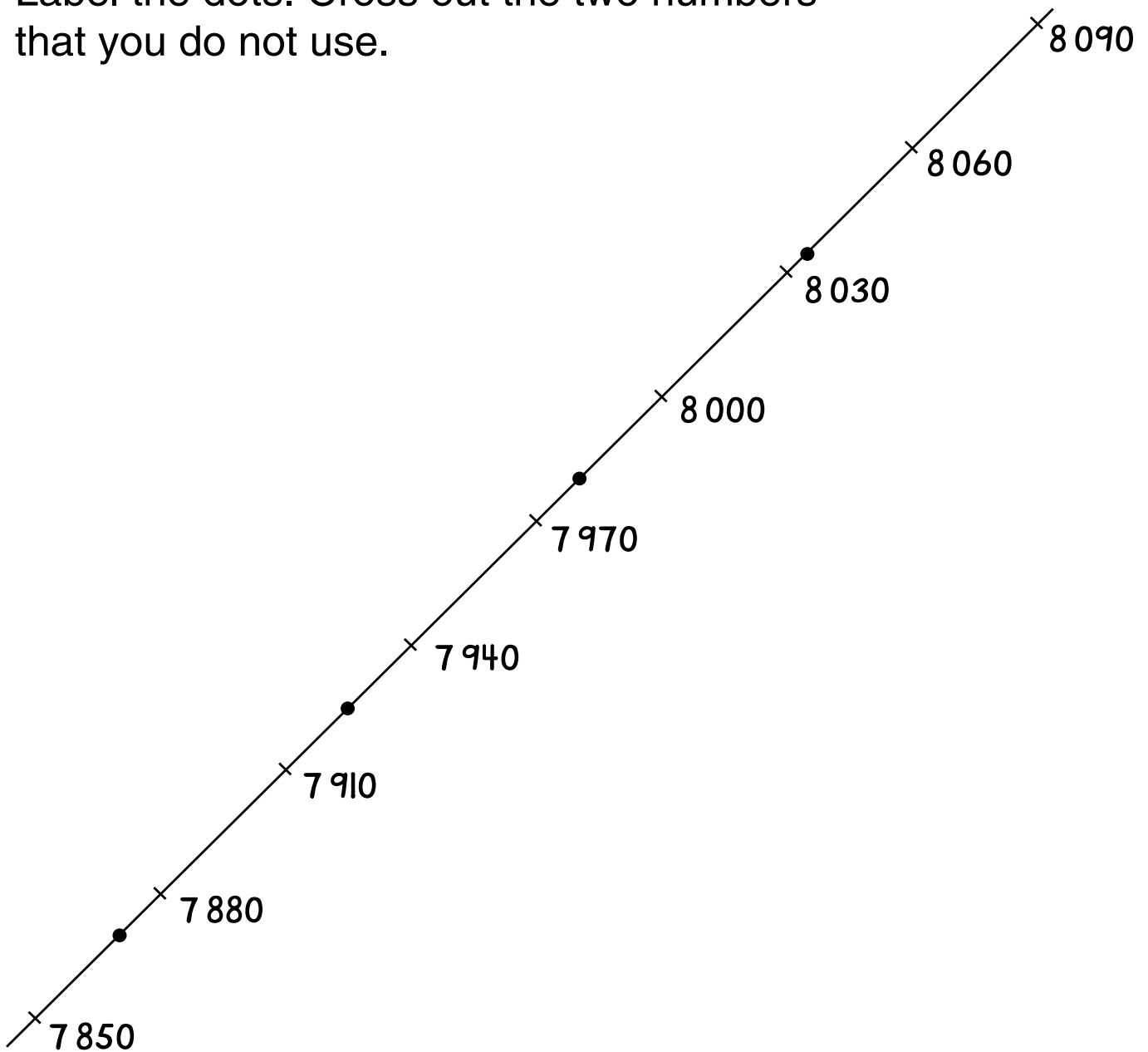
8035

7980

7870

8050

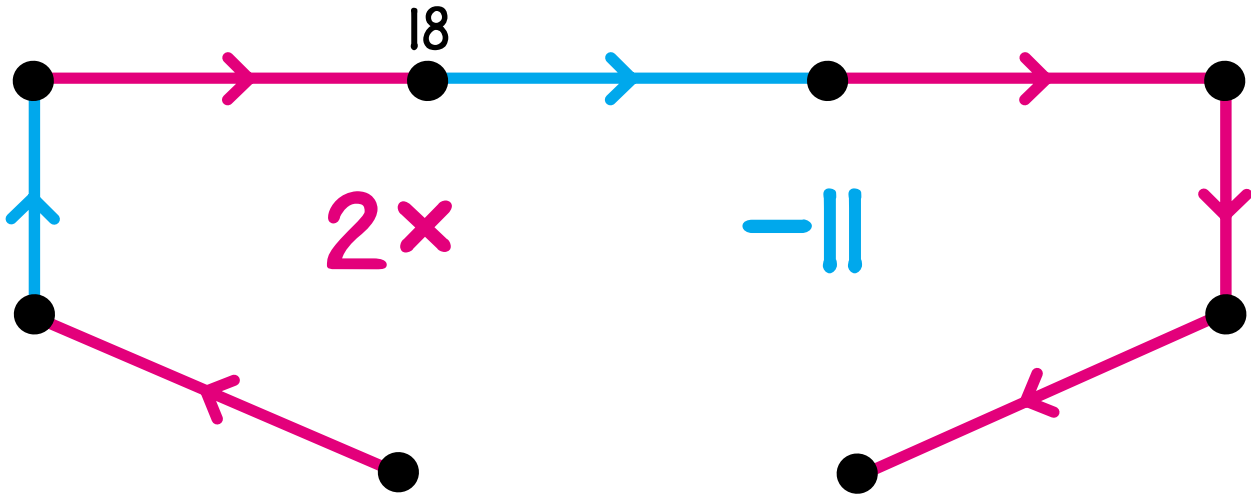
Label the dots. Cross out the two numbers that you do not use.



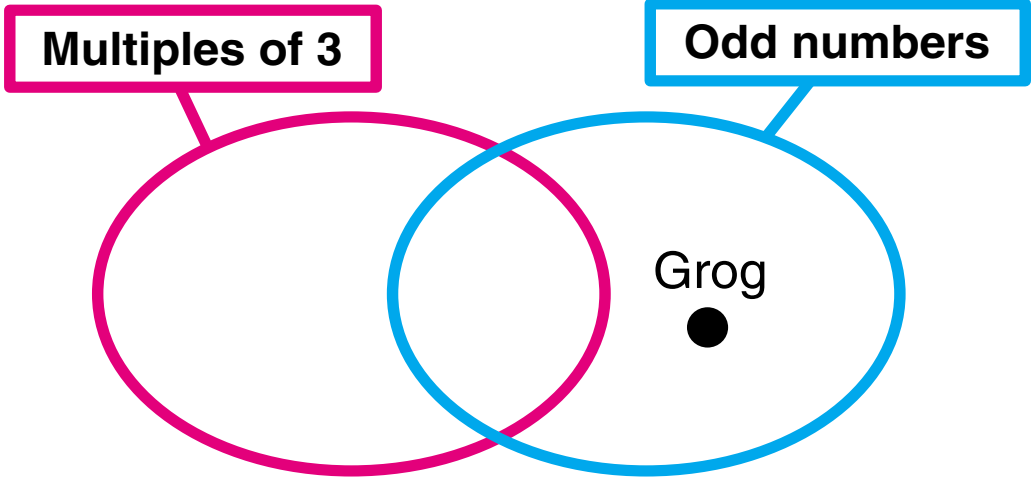
Grog is a secret number.

Clue 1

Grog is in this arrow picture.



Clue 2



Who is Grog? \_\_\_\_\_

Complete these calculations.

$$\begin{array}{r} 234 \\ + 687 \\ \hline \end{array}$$

$$\begin{array}{r} 23.4 \\ + 68.7 \\ \hline \end{array}$$

$$\begin{array}{r} 2.34 \\ + 6.87 \\ \hline \end{array}$$

$$\begin{array}{r} 52 \\ - 16 \\ \hline \end{array}$$

$$\begin{array}{r} 5.2 \\ - 1.6 \\ \hline \end{array}$$

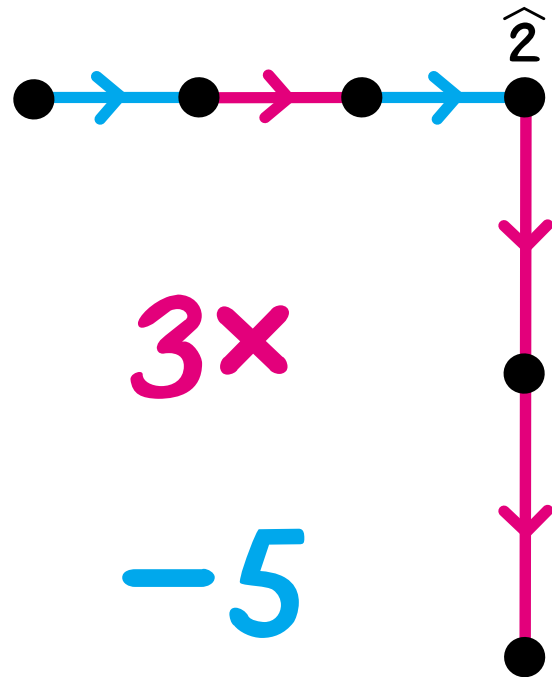
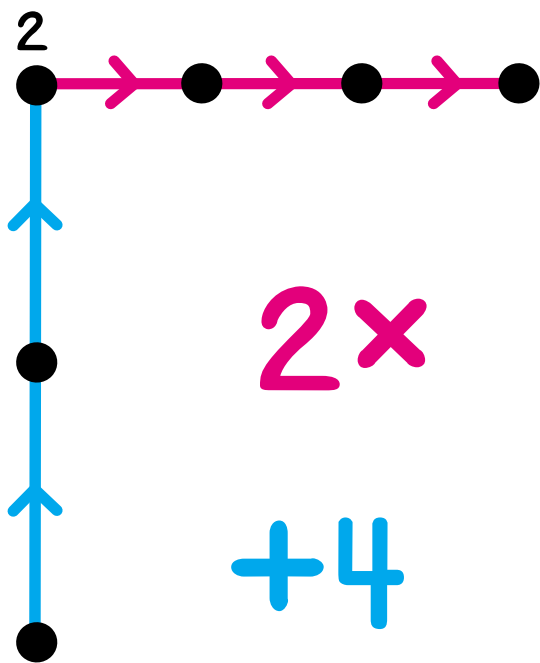
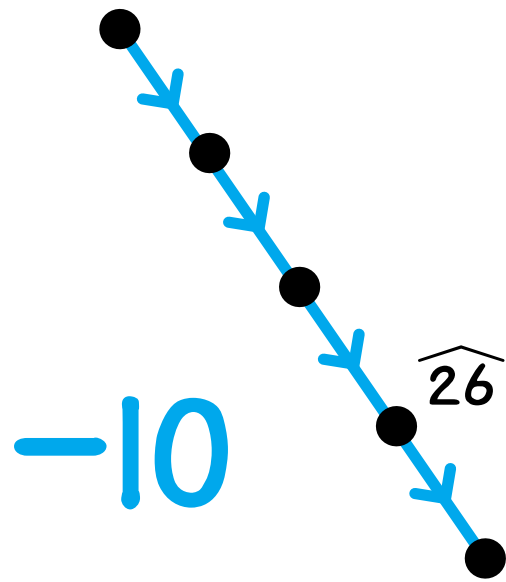
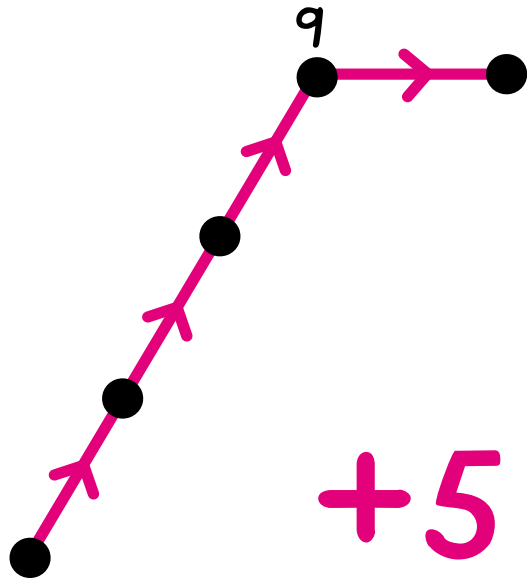
$$\begin{array}{r} 0.52 \\ - 0.16 \\ \hline \end{array}$$

$$\begin{array}{r} 492 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 49.2 \\ \times 3 \\ \hline \end{array}$$

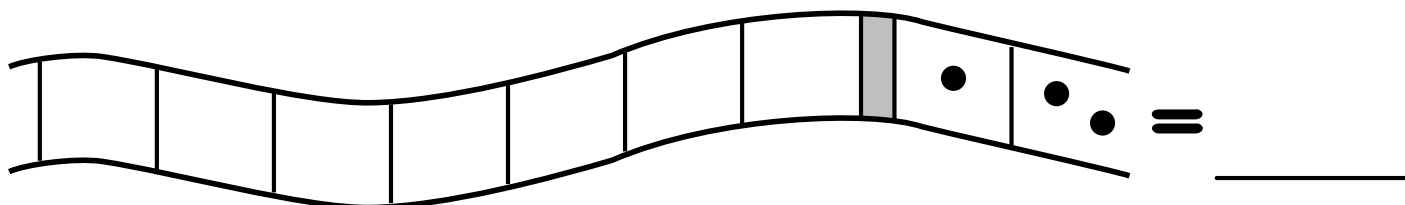
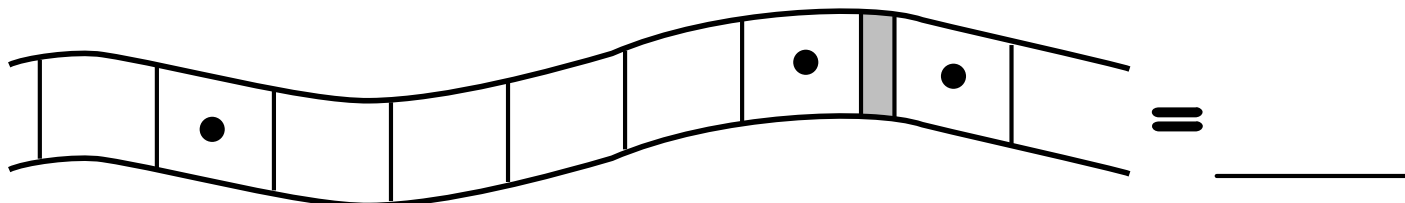
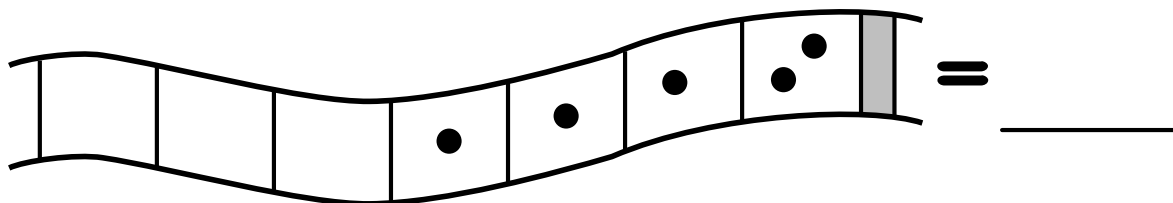
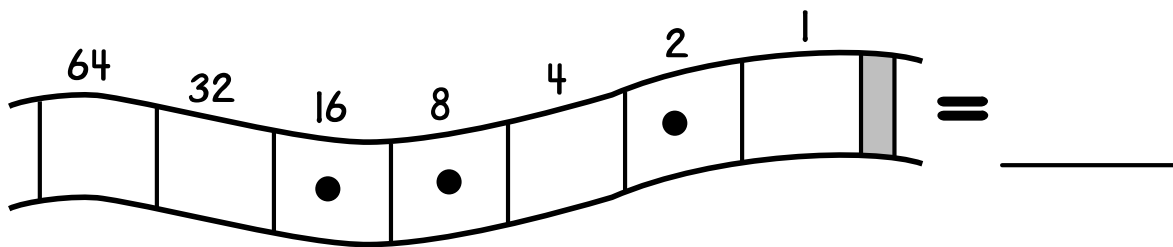
$$\begin{array}{r} 4.92 \\ \times 3 \\ \hline \end{array}$$

$\widehat{6}$  is in each of these pictures.  
 In each picture, label all of the dots and circle the dot for  $\widehat{6}$ .

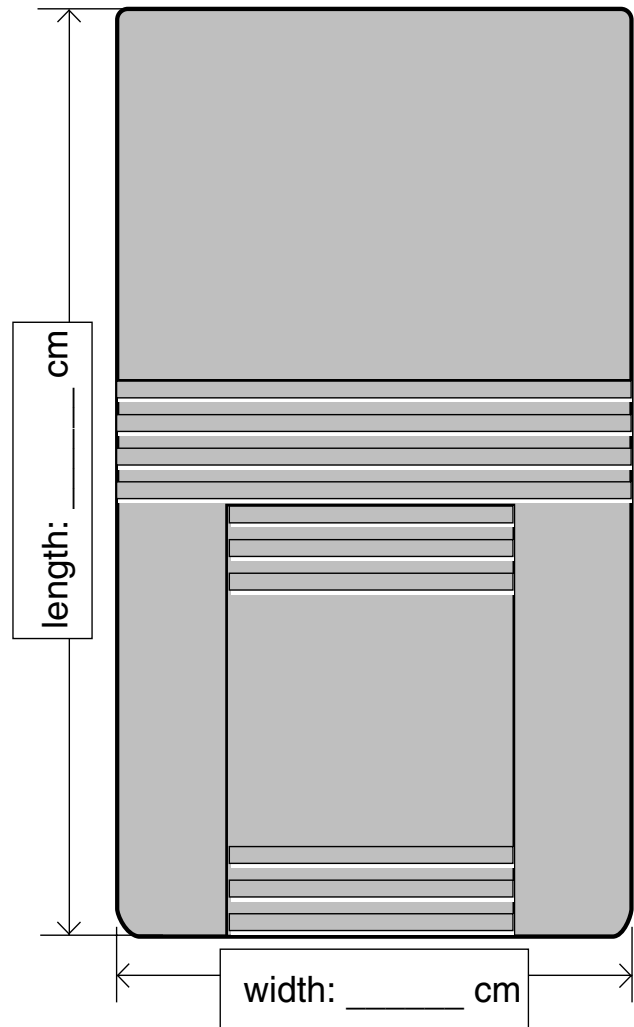
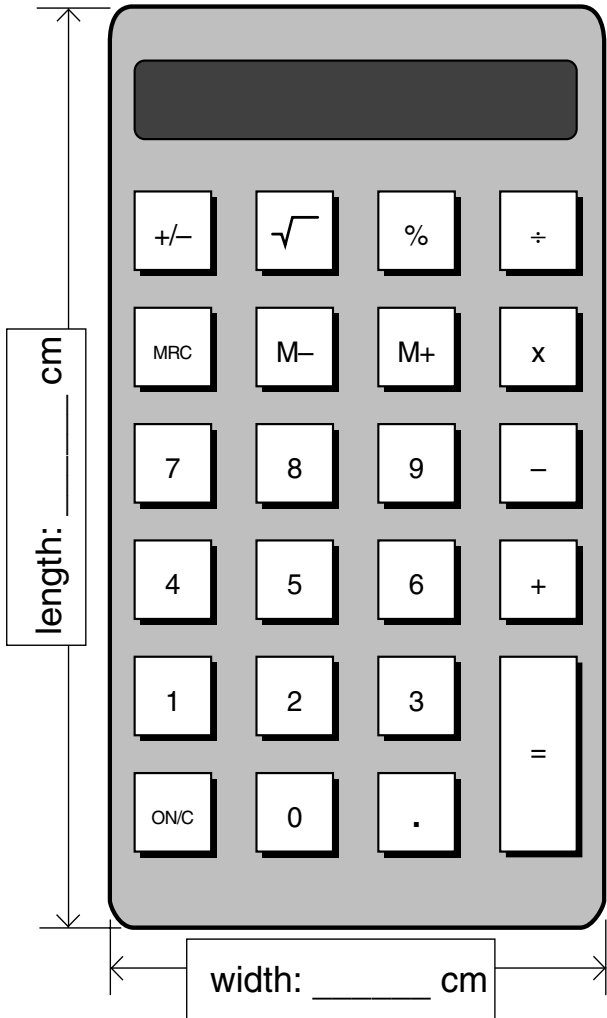




Which numbers are on the binary snake?



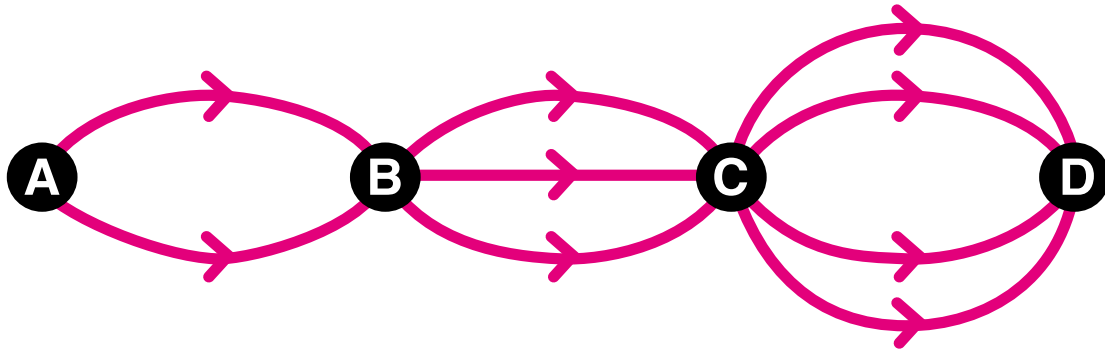
Measure to the nearest millimeter the lengths and widths of the calculator and its case, both pictured in actual size below.



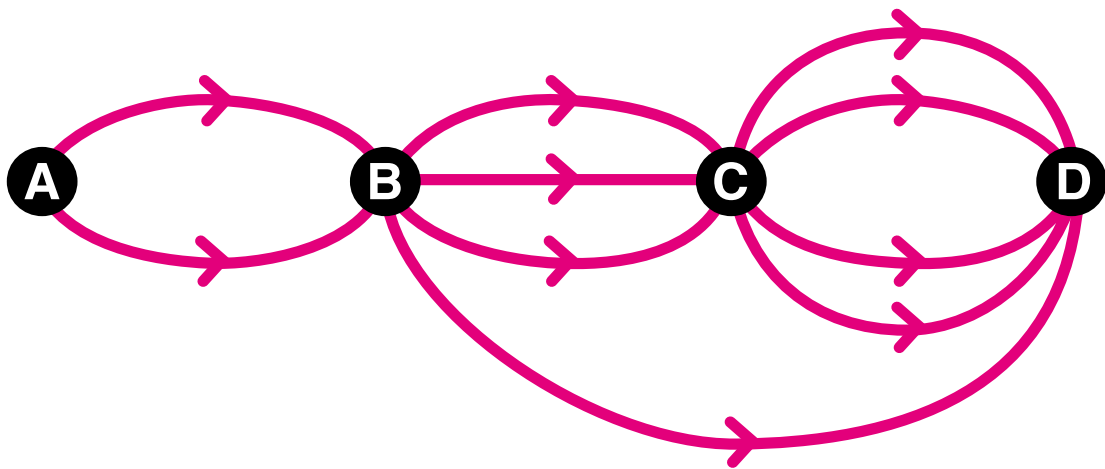
How much wider is the case? \_\_\_\_\_

How much longer is the case? \_\_\_\_\_

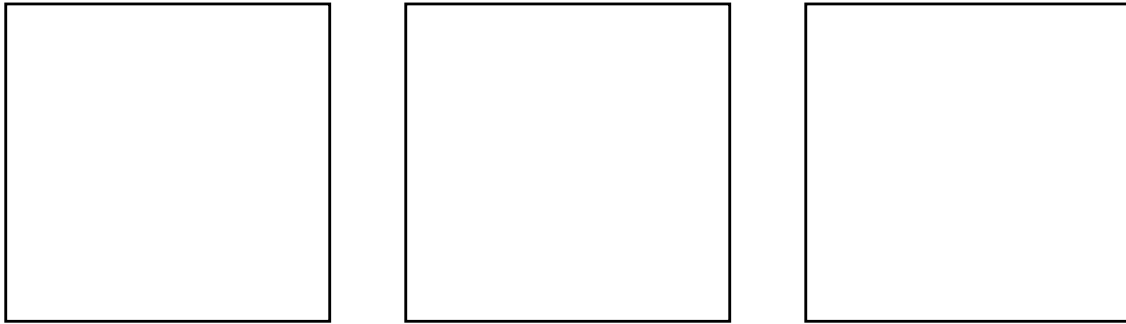
How many ways are there to go from city A to city D following these one-way roads? \_\_\_\_\_



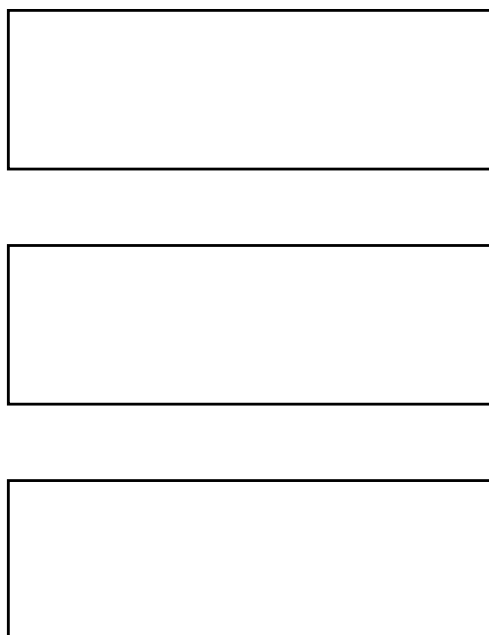
A new road is put in from city B to city D. Now how many ways are there to go from A to D following these one-way roads? \_\_\_\_\_



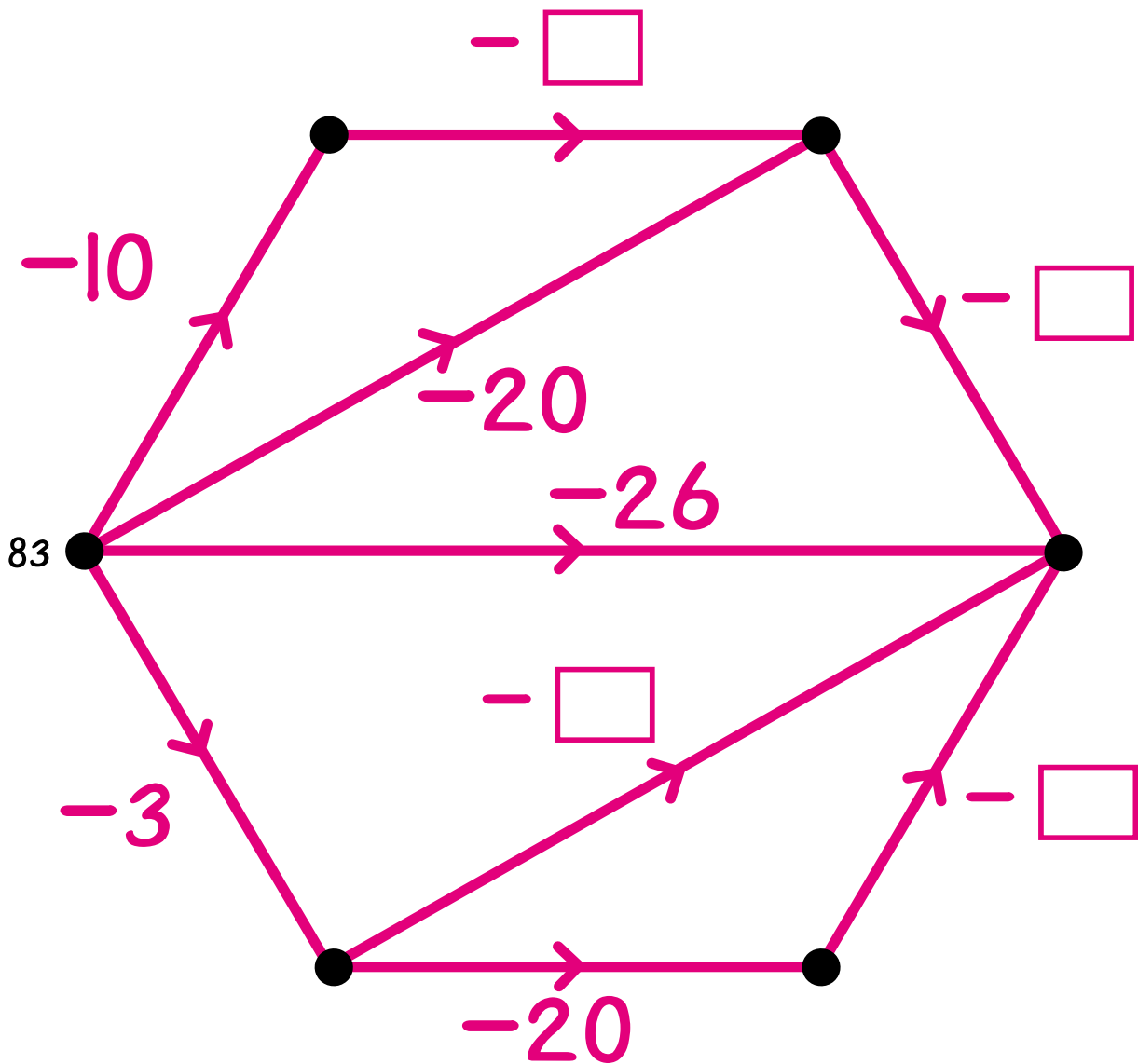
Show three different ways to divide a square cake into four pieces of the same size and shape. The pictures should look different from one another no matter how they are turned.



Show three different ways to divide a rectangular cake into four pieces of the same size and shape.



Fill in the boxes for the arrows.  
Label the dots.

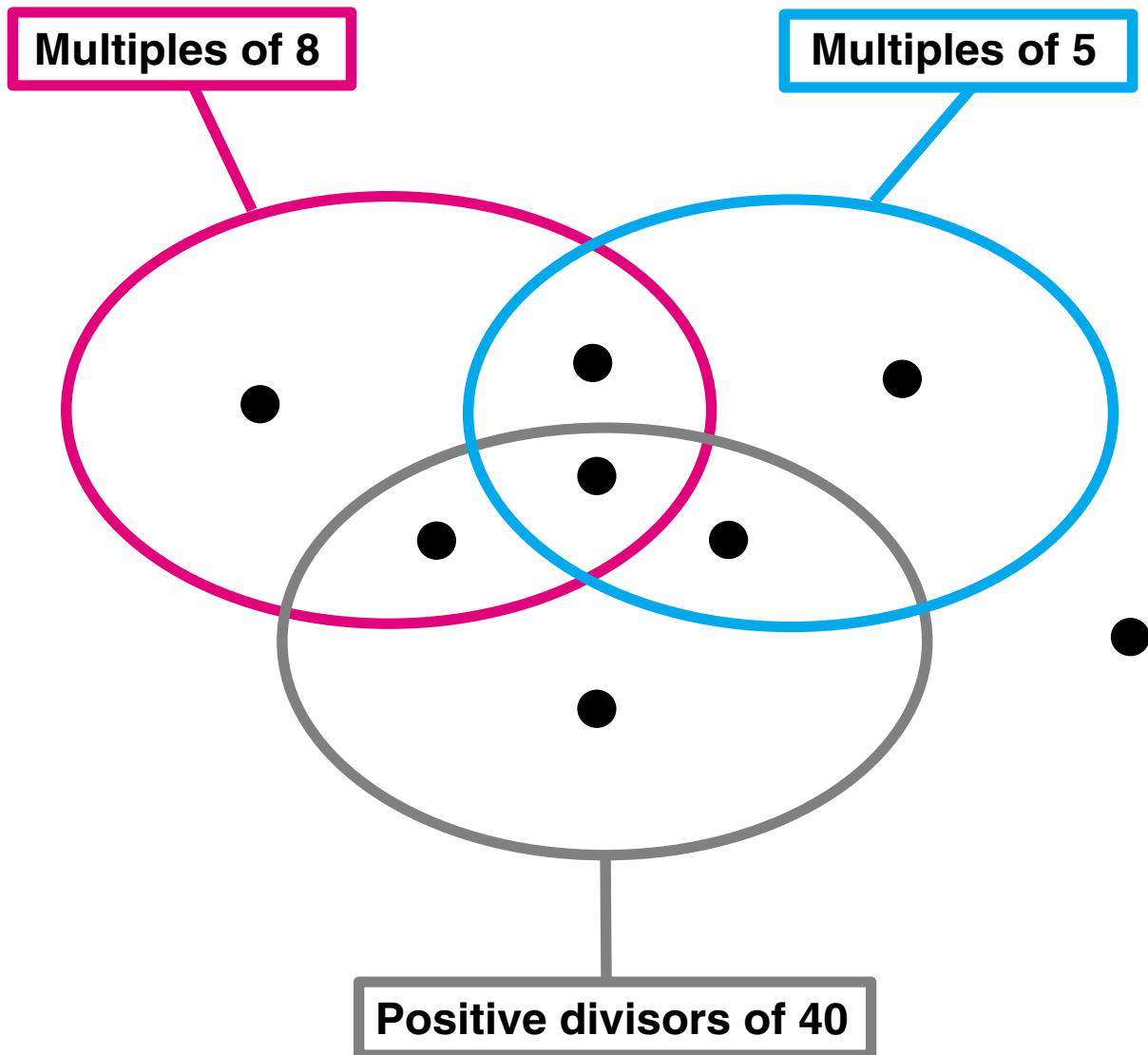


Complete this subtraction statement.

$$83 - 26 = \underline{\hspace{2cm}}$$

Put these numbers in the string picture.

20 1 80 16 8 55 40 3



Bethel School District has 1 410 students and 6 elementary schools. They wish to put the same number of students in each school. You may use a string picture to determine the number of students they send to each school.



How many students are in each school? \_\_\_\_\_

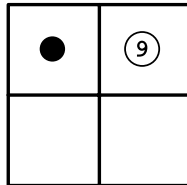
The school district is buying new desks for all of the students in five of the schools. How many desks must they buy? \_\_\_\_\_

If the district had only three schools for the 1 410 students, how many students would go to each school? \_\_\_\_\_

Zag is a secret number.

Clue 1

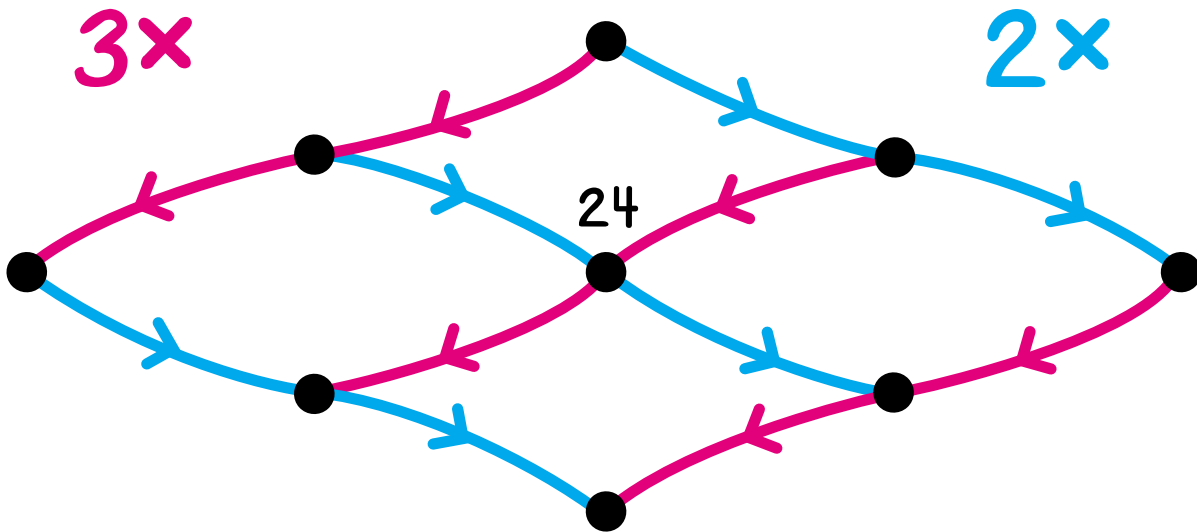
Zag can be put on this Minicomputer by adding one ⑦-checker.



Zag could be \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_.

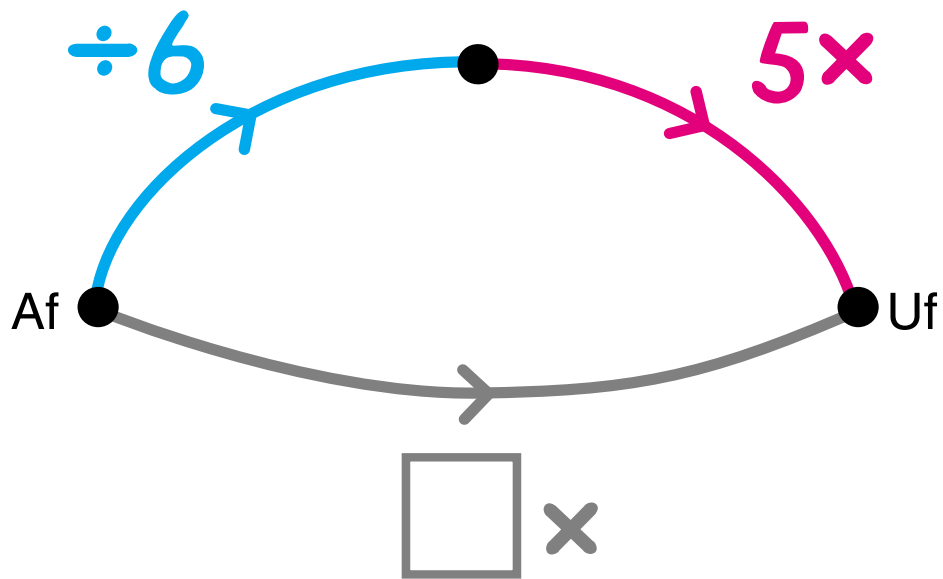
Clue 2

Zag is in this arrow picture.  
Label the dots.



Who is Zag? \_\_\_\_\_





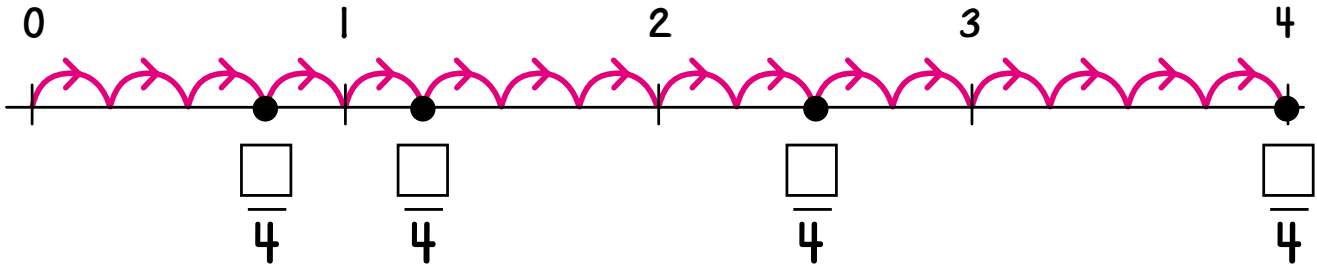
Complete the tables.

Af	Uf
12	
30	
36	
	50
	20

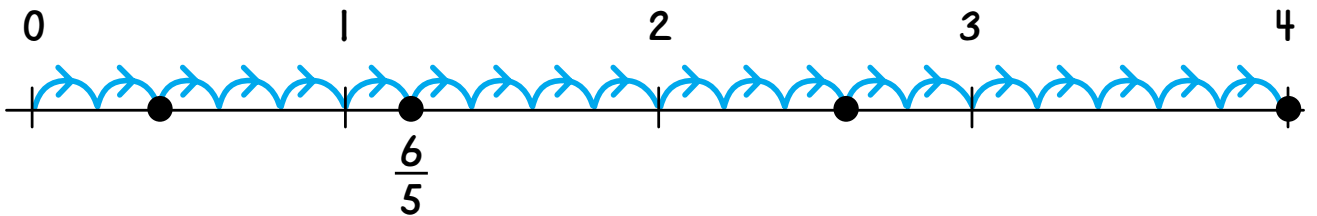
Af	Uf
18	
180	
1800	
	45
	450

Label the gray arrow.

Fill in the boxes.



Label the dots. One is done for you.



Put  $<$ ,  $=$ , or  $>$  in each box. Use the number lines to help you.

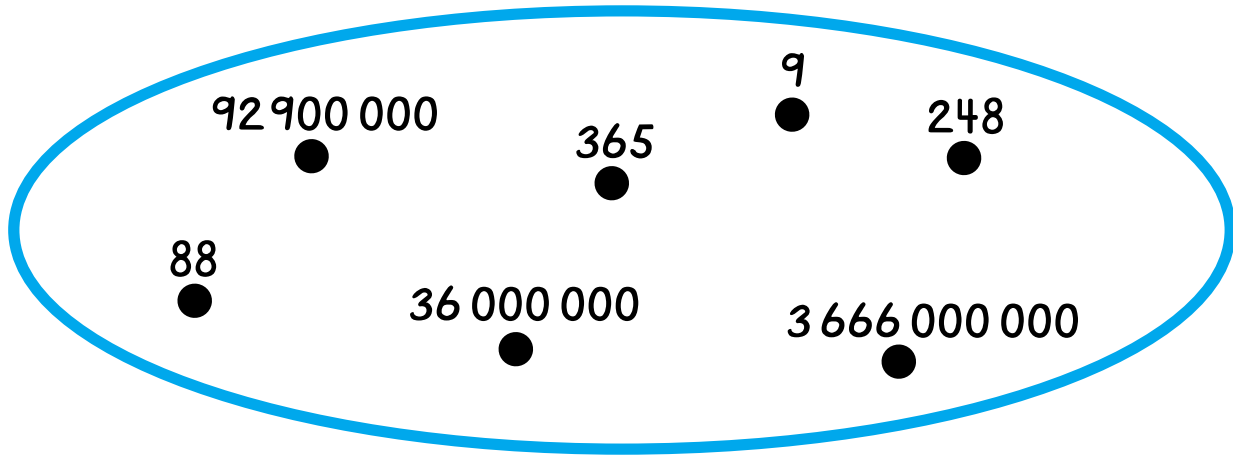
$$\frac{3}{4} \square \frac{2}{5}$$

$$\frac{13}{5} \square \frac{10}{4}$$

$$\frac{16}{4} \square \frac{20}{5}$$

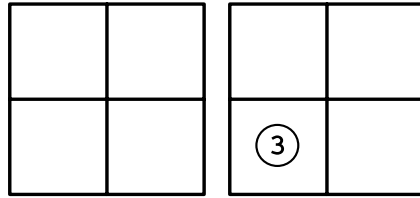
$$\frac{6}{5} \square \frac{5}{4}$$

Put these numbers in the blanks so that the paragraph makes sense.

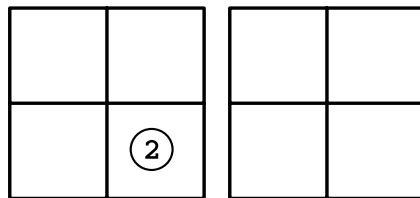


Earth is one of \_\_\_\_\_ planets that orbit around the sun. Mercury, the planet closest to the sun, is about \_\_\_\_\_ miles from the sun. Pluto, the planet furthest from the sun, is about \_\_\_\_\_ miles from the sun. Earth, the third planet from the sun, is about \_\_\_\_\_ miles from the sun. Mercury travels around the sun once every \_\_\_\_\_ days (Earth days). Earth needs a little more than four times as long as Mercury to travel around the sun, about \_\_\_\_\_ days. Pluto takes the longest time to travel once around the sun, about \_\_\_\_\_ years (Earth years).

Add one ④-checker so that 86 is on the Minicomputer.

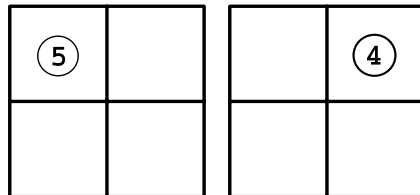


Add one ⑦-checker so that 76 is on the Minicomputer.

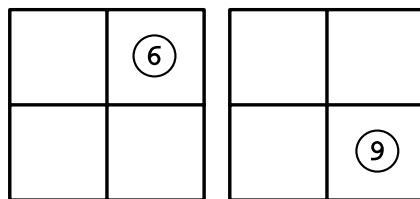


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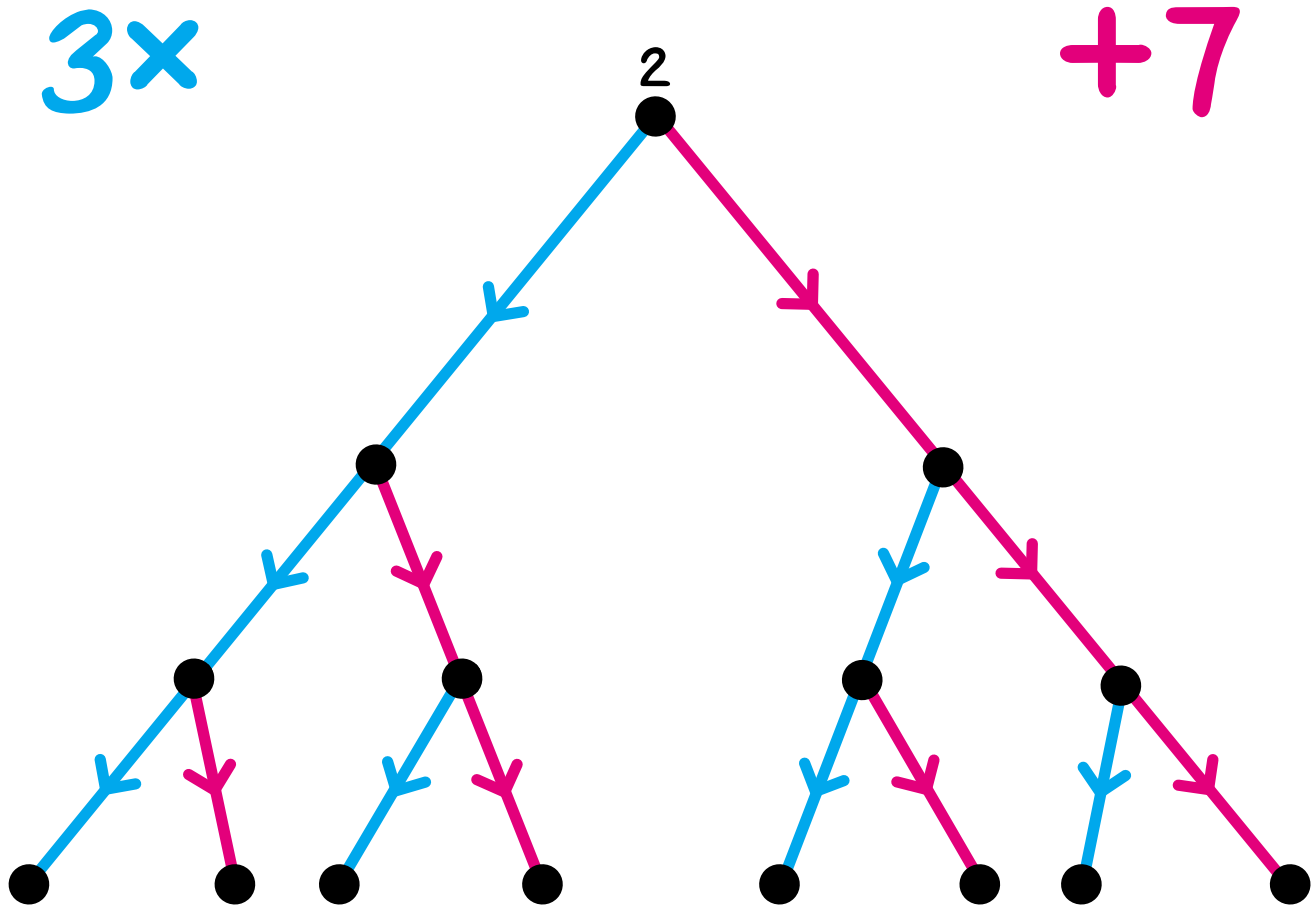
Move one checker so that 408 is on the Minicomputer.



Move one checker so that 57 is on the Minicomputer.



This tree show all of the possible red-blue arrow roads that have exactly three arrows.



Fam is the ending number of an arrow road that has two 3x arrows and one +7 arrow. Circle the dots in the tree that could be for Fam.

Fam is the least of the three numbers.  
Who is Fam? \_\_\_\_\_

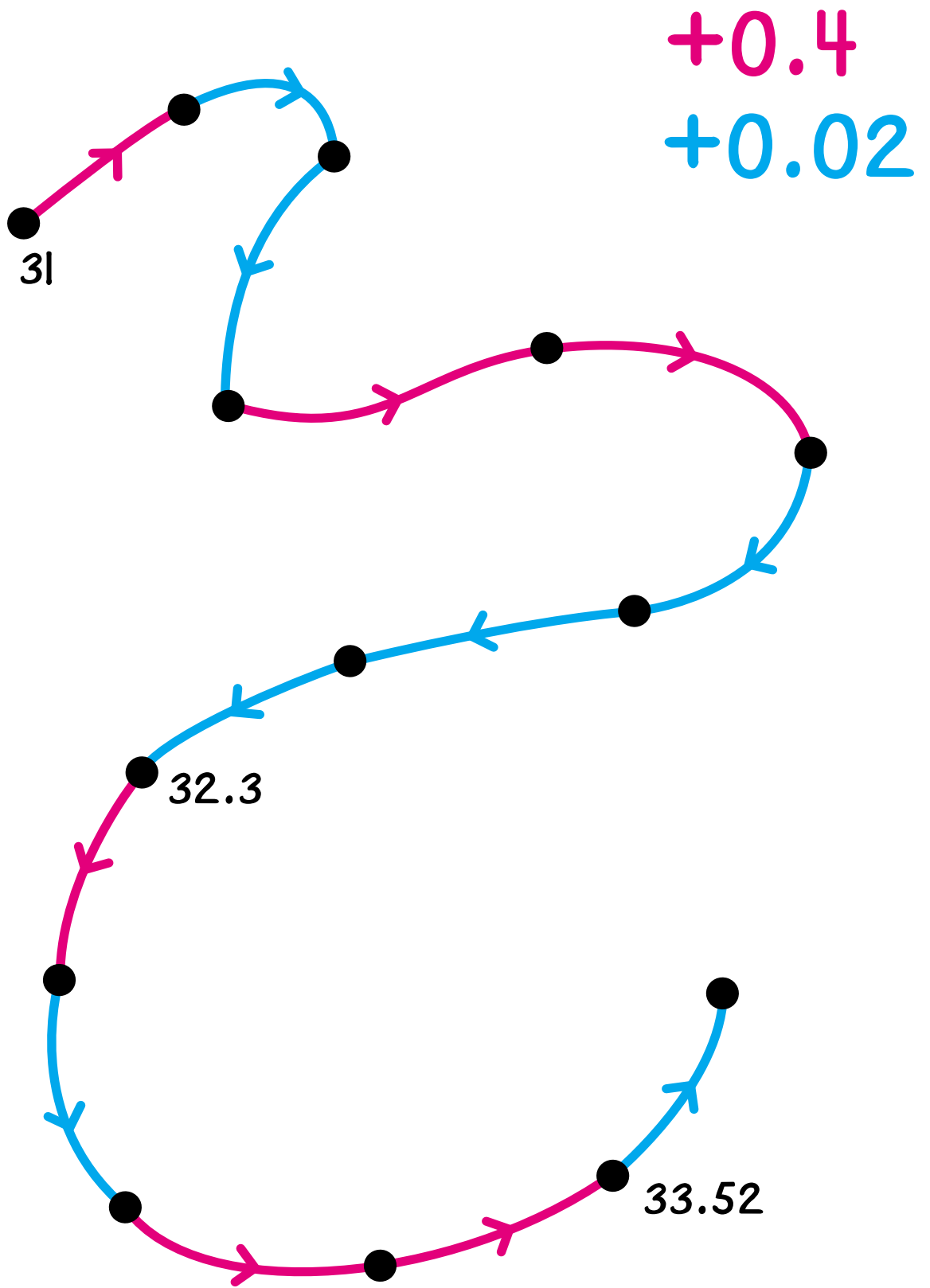
NOTE: You do not need to label all of the dots in the picture.

## Profitable Yard Work

It takes Christy 2 hours and 15 minutes to do the yard work each week. Her parents pay her \$2 an hour for this work. How many weeks will it take Christy to earn enough money to buy a bicycle speedometer that costs \$30? \_\_\_\_\_  
Will she have any money left over? \_\_\_\_\_  
If so, how much? \_\_\_\_\_

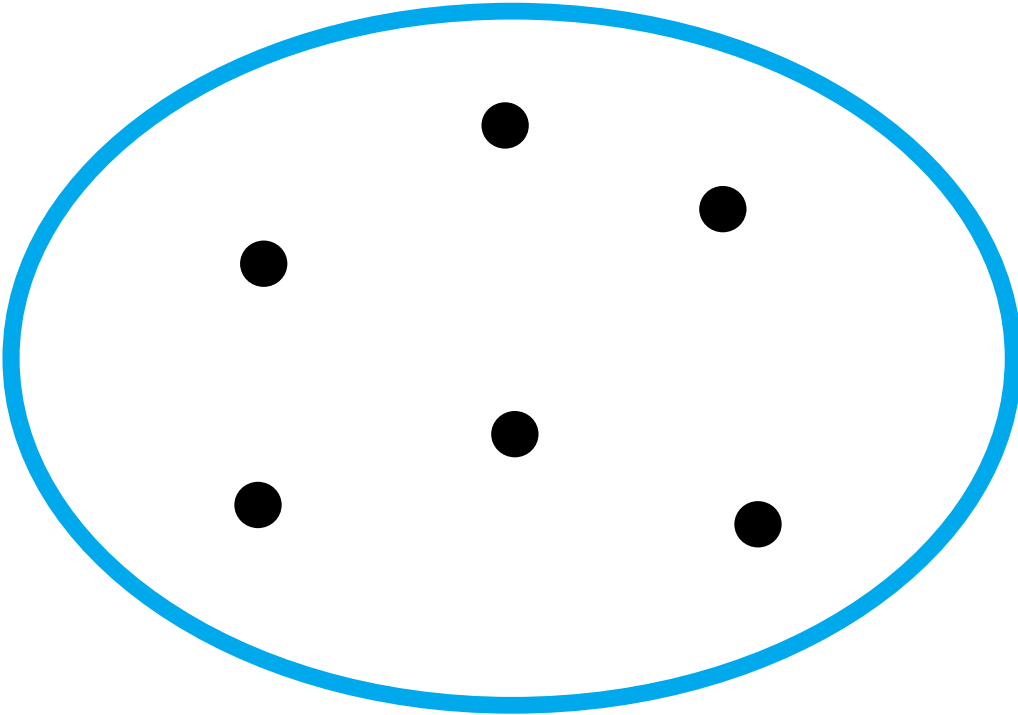


Label the dots.



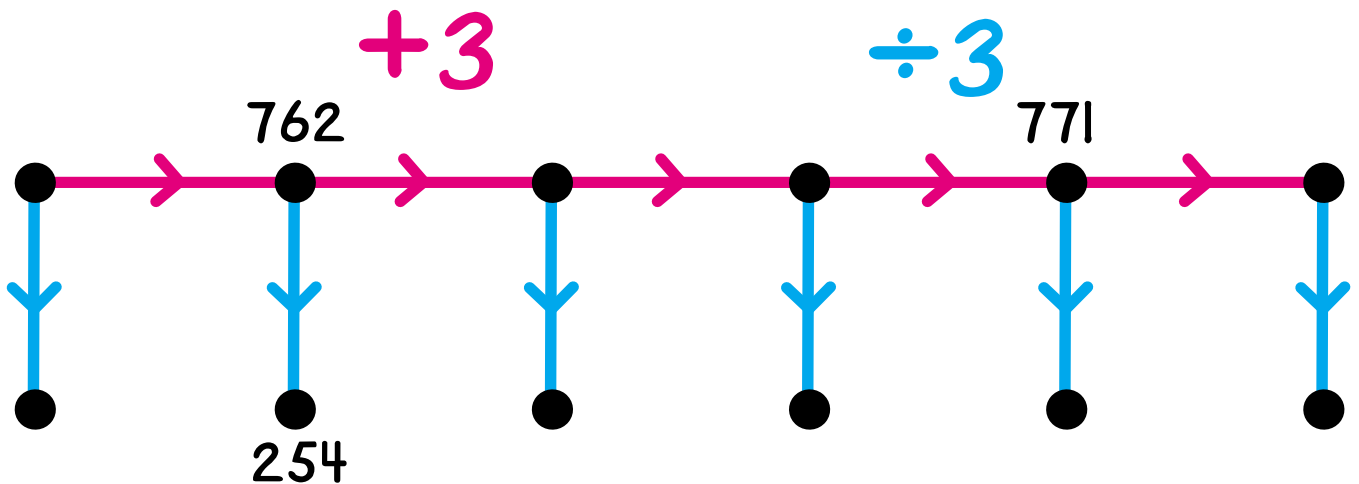
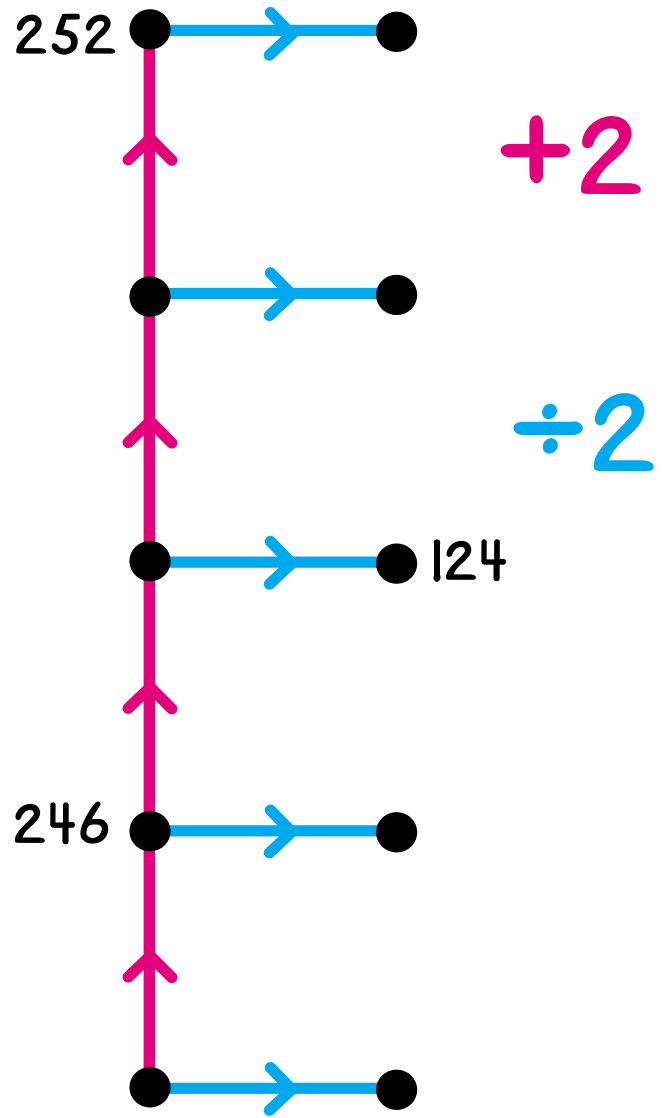
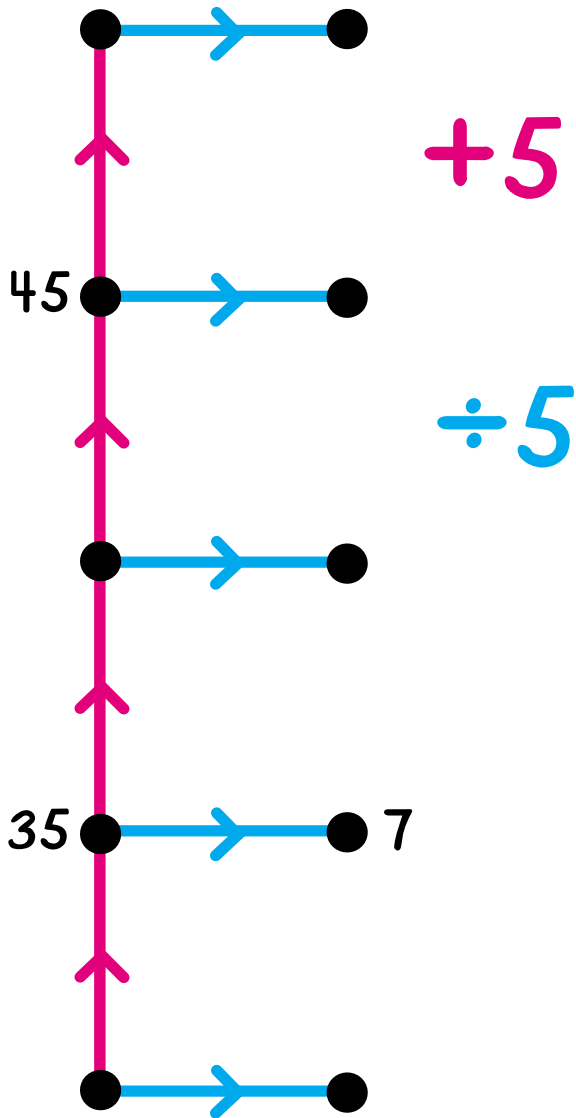
Label the six dots with whole numbers so that

- all of them are multiples of 7;
- at least one of them is greater than 100; and
- exactly two of them are between 50 and 80.





Label the dots in each picture.



Ponderosa School Fair Tickets	
Adults.....	\$5.00
Students	
10–18 years old.....	\$3.00
Under 10 years old.....	\$2.00

Latisha sold 50 tickets to the Ponderosa School Fair and collected \$150.00. How many tickets of each kind did she sell?

Adult \_\_\_\_\_

Student (10–18) \_\_\_\_\_

Student (under 10) \_\_\_\_\_

NOTE: There are several solutions to this problem.  
Can you find another solution?

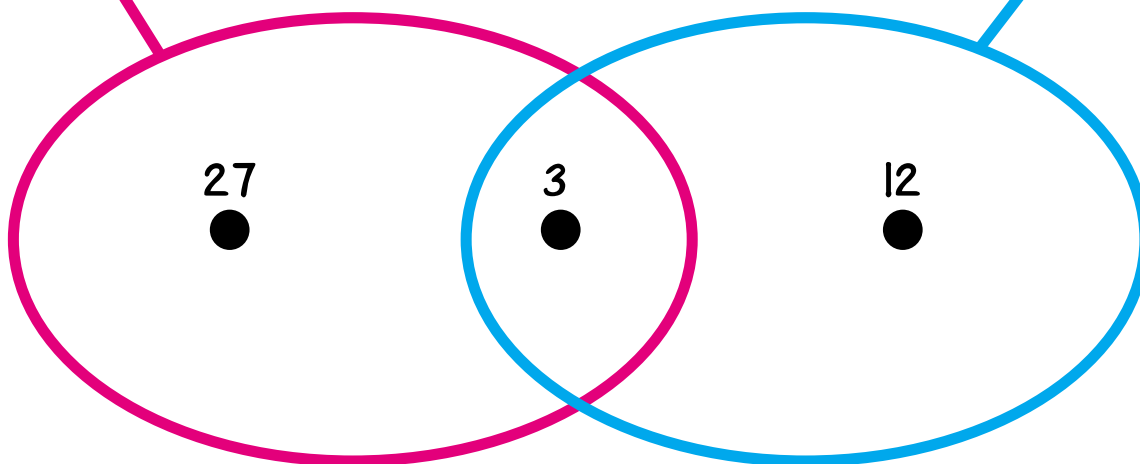
The red label is one of these:

The blue label is one of these:

<b>Multiples of 3</b>
<b>Multiples of 5</b>
<b>Positive divisors of 18</b>
<b>Positive divisors of 24</b>
<b>Greater than 10</b>
<b>Less than 10</b>
<b>Odd numbers</b>

<b>Multiples of 3</b>
<b>Multiples of 5</b>
<b>Positive divisors of 18</b>
<b>Positive divisors of 24</b>
<b>Greater than 10</b>
<b>Less than 10</b>
<b>Odd numbers</b>

Label the strings.



## Period of Rotation

Fill in the blanks.

1 hour = \_\_\_\_\_ minutes

1 hour 4 minutes = \_\_\_\_\_ minutes

5 hours = \_\_\_\_\_ minutes

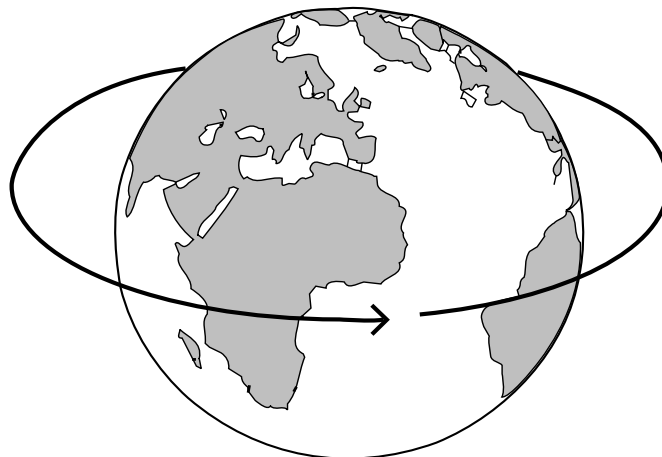
5 hours 30 minutes = \_\_\_\_\_ minutes

1 minute = \_\_\_\_\_ seconds

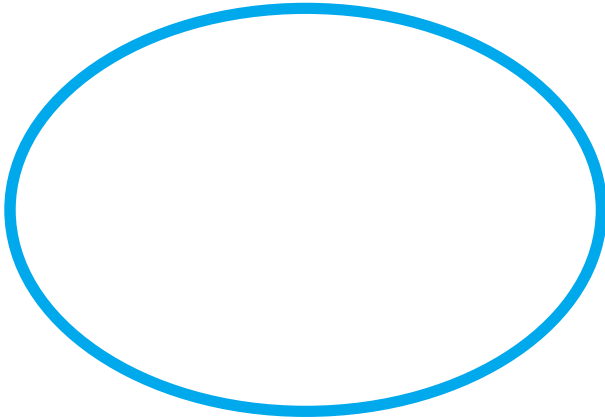
1 minute 20 seconds = \_\_\_\_\_ seconds

It takes the Earth 23 hours 56 minutes 4 seconds (a sidereal day) to make one complete rotation, but if you were watching the Earth rotate as you were standing on the sun, it would appear to rotate every 24 hours (a solar day).

What is the difference? \_\_\_\_\_ minutes \_\_\_\_\_ seconds



This string is either for numbers less than 20 or for prime numbers.



**Less than 20**

or

**Positive prime numbers**

Draw a circle around each number below that we know for sure belongs inside the blue string.

Draw a triangle around each number below that we know for sure belongs outside the blue string.

40	6	2
17	23	$\hat{5}$

Note: Some of the numbers should have neither a circle nor a triangle around them because we cannot tell for sure where they belong.

$$10 \times 64 = 640$$

$$1 \times 64 = 64$$

Use these two results to help you match the tags below.  
One is done for you.

$$11 \times 64$$

$$640 - 64$$

$$20 \times 64$$

$$64 + 64$$

$$9 \times 64$$

$$640 + 64$$

$$2 \times 64$$

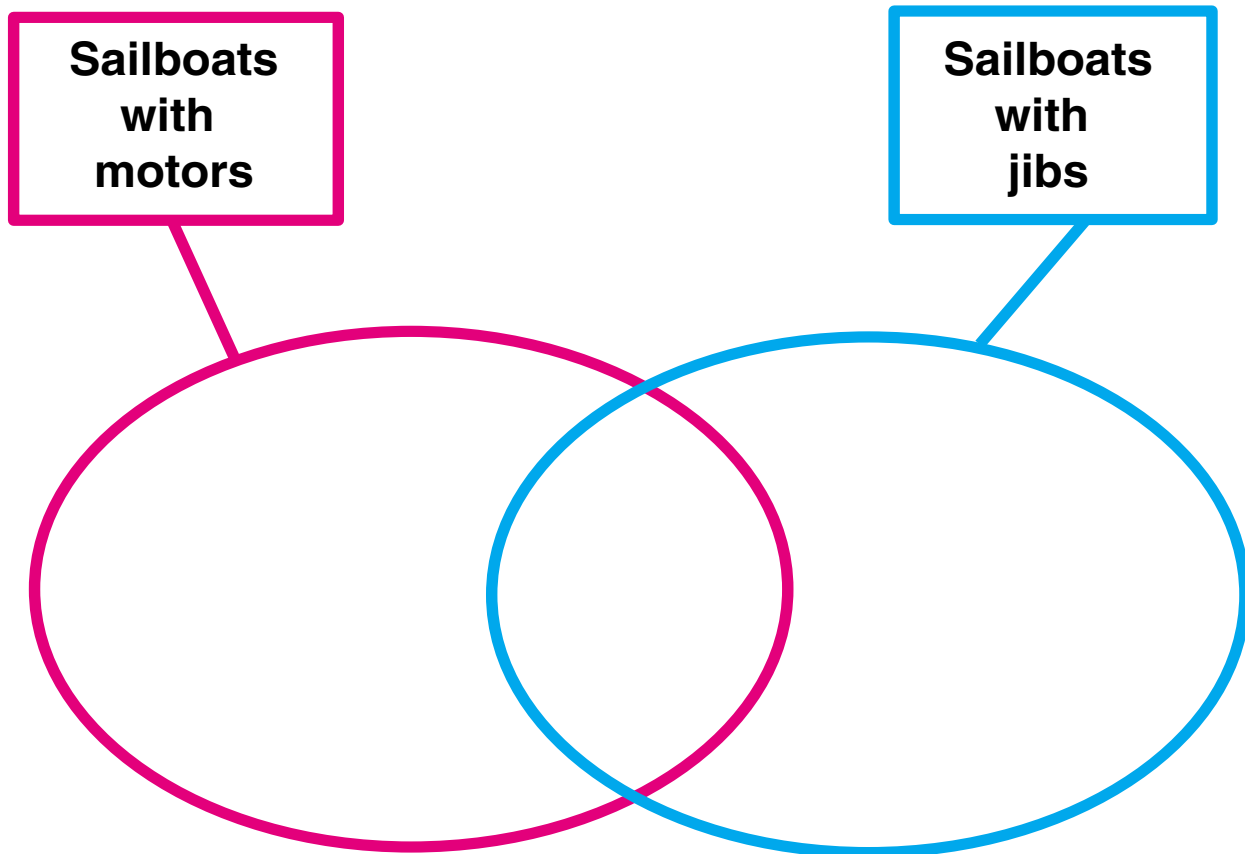
$$64 - 640$$

$$\hat{9} \times 64$$

$$640 + 640$$

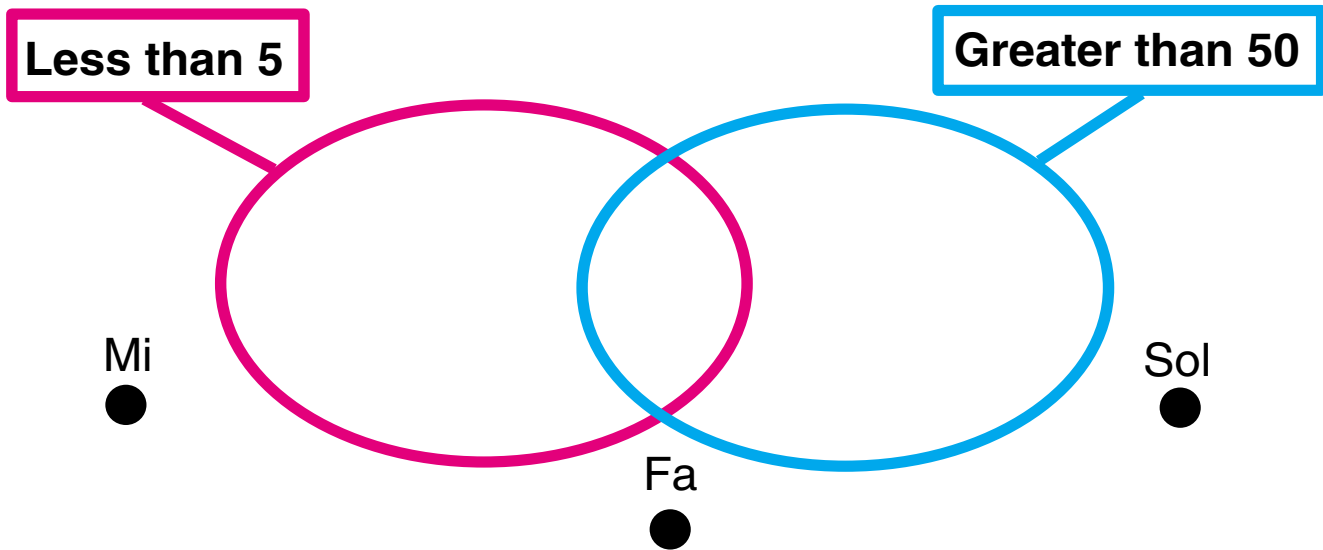
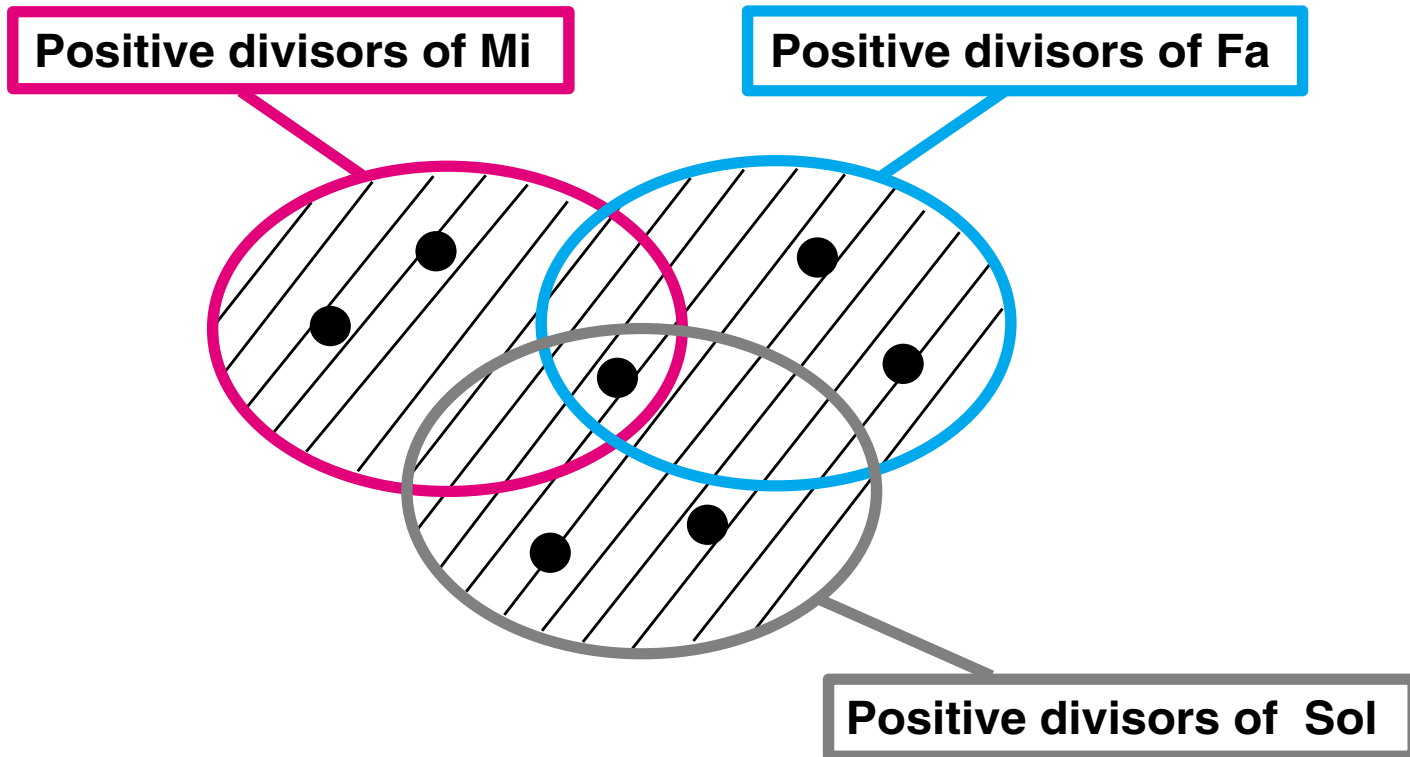
Kareem has a collection of 15 sailboats. 9 of the boats have jibs and 11 of the boats have motors. 3 boats do not have jibs or motors.

Draw dots for the 15 boats in the picture below.



How many of Kareem's boats have motors and jibs? \_\_\_\_\_

Mi, Fa, and Sol are three secret numbers. These pictures will help you to find them.



Mi, Fa, and Sol are \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.