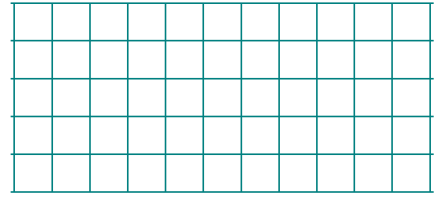


## Lesson № 15

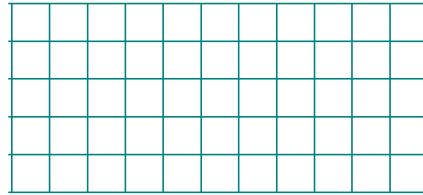
1

A pencil costs  $a$  dollars. How much do we have to pay for 2 boxes of pencils if the first box contains  $m$  pencils, and the second box contains  $n$  pencils?



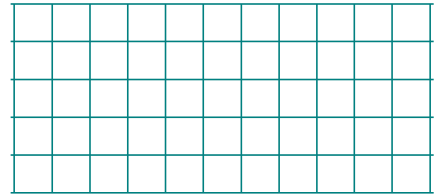
\_\_\_\_\_

A table costs  $x$  dollars, and a chair costs  $y$  dollars. What is the cost of 2 tables and 8 chairs?



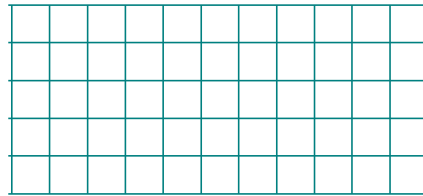
\_\_\_\_\_

$c$  dollars can buy 5 pounds of apples. How much do 8 pounds of apples cost?



\_\_\_\_\_

\*  $c$  dollars can buy 5 pounds of apples. How many pounds of apples can  $d$  dollars buy?



\_\_\_\_\_

2

*I thought of a number; then added 900. The result was a number less than 1000.*

Check ✓ correct statements and cross mark ✗ the false ones:

- a) The number I first thought of must be less than 100
- b) The number I first thought of must be less than 99
- c) The number I first thought of could be equal to 99
- d) The number I first thought of could not be more than 99
- e) The number I first thought of could be equal to 10
- f) The number I first thought of could not be equal to 100

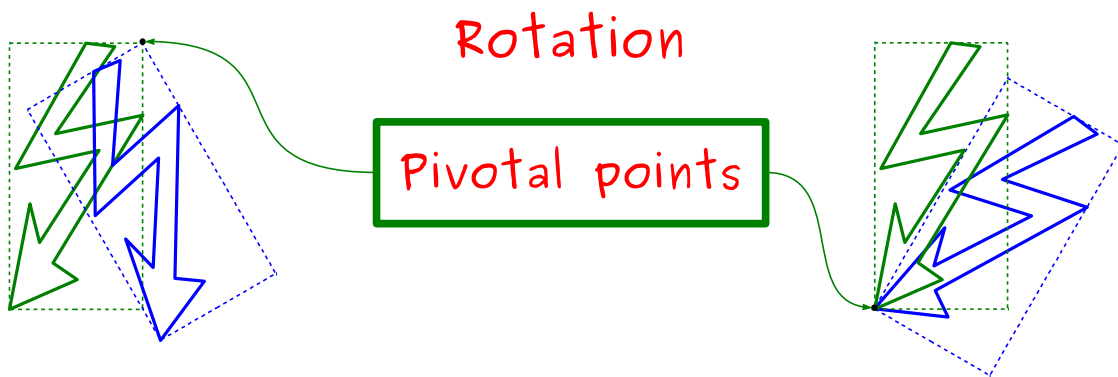
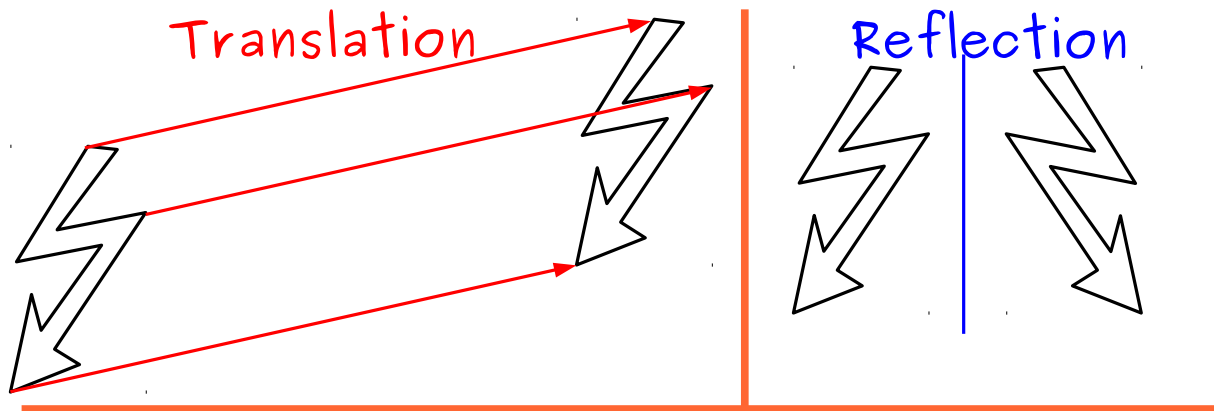


## Translation. Reflection. Rotation.

Translation is a motion in which a shape slides along a certain direction.

Rotation is a motion in which a shape turns around a pivotal point on a certain angle.  
Rotations around different pivotal points move the same shape differently.

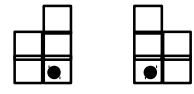
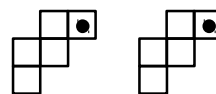
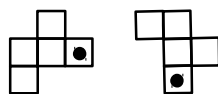
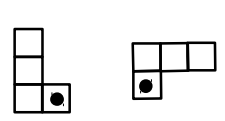
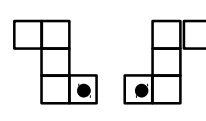
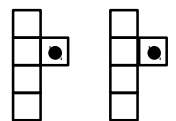
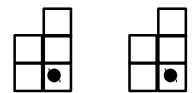
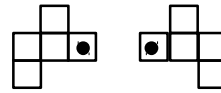
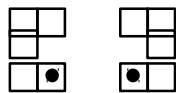
Reflection is transformation of a shape in a plane mirror. Reflection is not a motion of an object.



5

Explain how each figure was moved.

Write translation, rotation, or reflection.



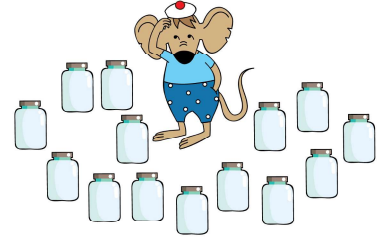
6

## What can and cannot be divided with a remainder.

Compare three problems and their solutions:

**Problem 1:** *Little Joe needs to distribute 14 cans of milk from the cow farm among the four brothers. How many cans will each one receive?*

**Solution:**  $14 : 4 = 3 \text{ rem } 2$



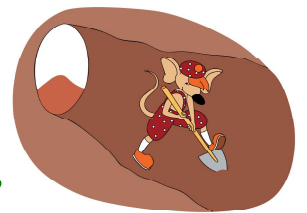
What does the remainder mean?

These two cans will remain on the cow farm, probably.

**Problem 2:** *Foxy tail needs to dig his way to the Cheese Factory, which is 24 m away from his house. He digs 4 meters in one day. How long will it take him to get to the Cheese Factory?*

**Solution:**  $24 : 4 = 6$

So, Foxy tail will dig these 24 meters in 6 days.



**Problem 3:** *Foxy tail needs to dig his way to the Cheese Factory, that is 21 m away from his house. He digs 4 meters in one day. How long will it take him to get to the Cheese Factory?*

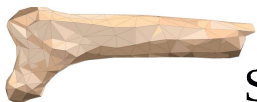
**Solution:**  $21 : 4 = 5 \text{ rem } 1$

Does remainder mean that Foxy tail can dig 24 meters in 6 days but will never make it to the factory if it is 3 meters closer?

Sometimes dividing with a remainder makes no sense.



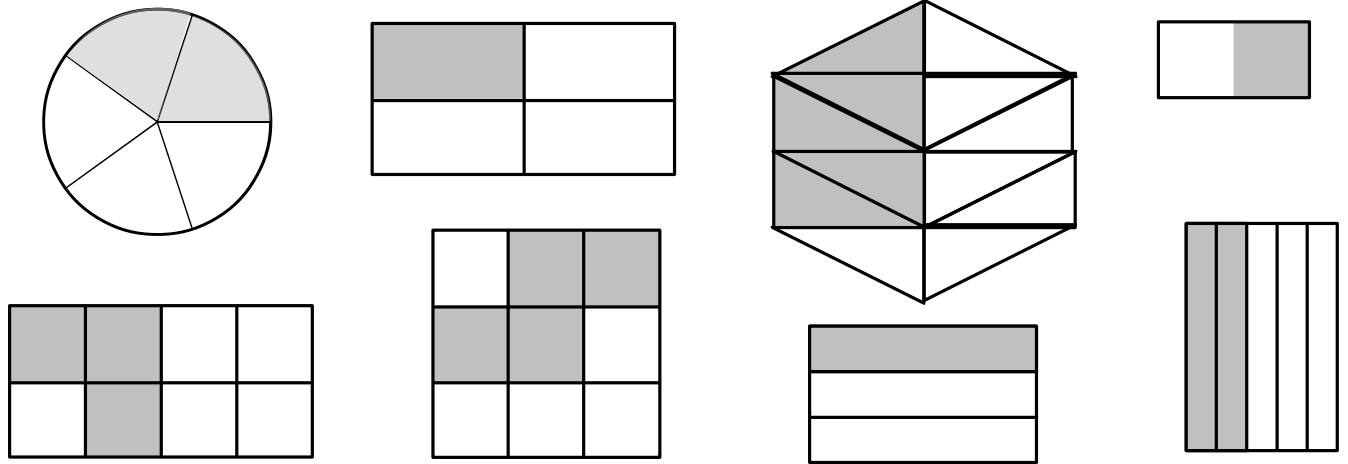
Sometimes a whole thing has to be divided into pieces.



Such pieces are called **fractions**

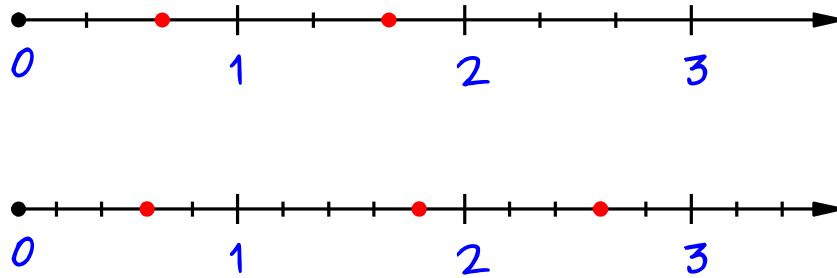
7

Which fractions are represented on the drawings?



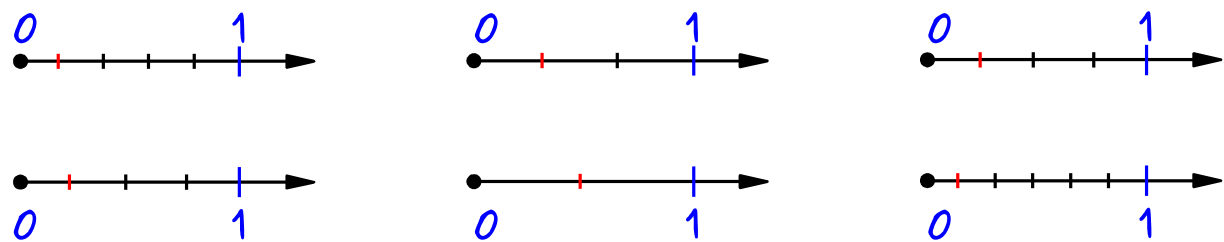
8

Which fractions are marked on the number line?



9

Use the number lines to compare fractions:



         <                        <                        <

**10** Compare:

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

$$\frac{1}{4} \square \frac{1}{7}$$

$$\frac{1}{3} \square \frac{1}{5}$$

$$\frac{1}{2} \square \frac{1}{6}$$

$$\frac{1}{7} \square \frac{1}{9}$$

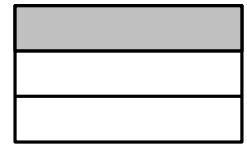
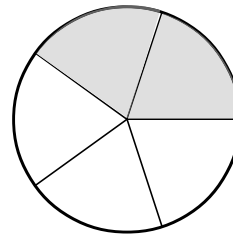
$$\frac{1}{4} \square \frac{1}{3}$$

$$\frac{1}{6} \square \frac{1}{11}$$

$$\frac{1}{5} \square \frac{1}{8}$$

**11** Unit as a fraction:

$$1 = \frac{1}{1} = \frac{2}{\square} = \frac{3}{\square} = \frac{\square}{4} = \frac{\square}{\square}$$



**12**

Little Joe made a statement. Foxy tail repeated the very same statement. What statement could it be?

---



**Additional problems:**

**13** Solve the following equations:

$$64 + 8 = 26$$

$$7x + 16 = 72$$