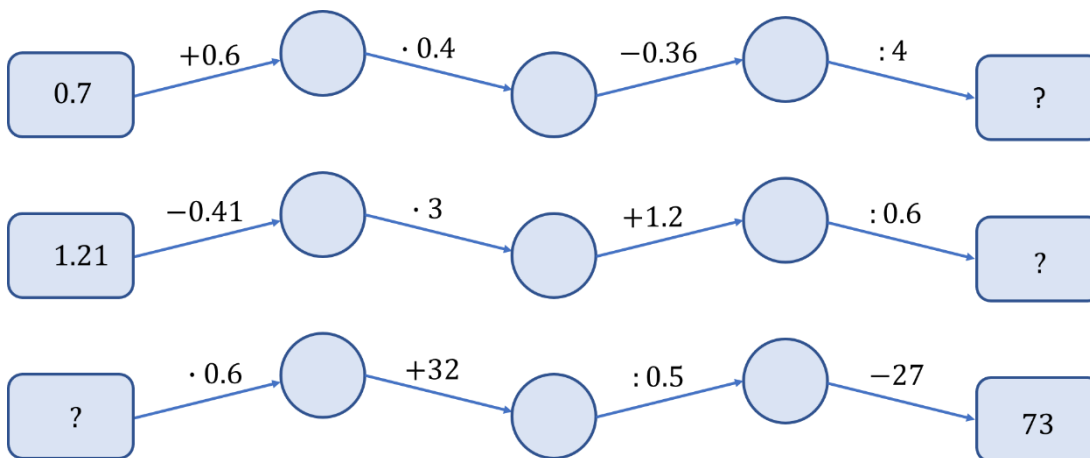


1. What number should be placed instead of “?”



2. Draw the coordinate system on a graph paper (last page of the file) and using the coordinate below draw the picture connecting points in order as shown by arrows:

$(-7; -2) \rightarrow (-5; -3) \rightarrow (-3; -3) \rightarrow (-4; -4) \rightarrow (-5; -8) \rightarrow (-3; -9) \rightarrow (1; -9) \rightarrow (2; -6) \rightarrow (2; -9) \rightarrow (8; -9) \rightarrow (8; -4) \rightarrow (9; 0) \rightarrow (11; -5) \rightarrow (11; -1) \rightarrow (8; 7) \rightarrow (5; 8) \rightarrow (1; 8) \rightarrow (-3; 9) \rightarrow (-6; 9) \rightarrow (-8; 8) \rightarrow (-10; 5) \rightarrow (-10; 0) \rightarrow (-9; -4) \rightarrow (-9; -8) \rightarrow (-7; -8) \rightarrow (-7; -2) \rightarrow (-6; 1) \rightarrow (-3; -2) \rightarrow (0; -2) \rightarrow (1; 0) \rightarrow (2; 4), (0; 7) \rightarrow (-3; 8) \rightarrow (-5; 7) \rightarrow (-6; 1) \rightarrow (-2; -4) \rightarrow (0; -6) \rightarrow (4; -6) \rightarrow (5; -5) \rightarrow (-7; 2).$

3. Solve the following equations, mark the answers on a number line, find the coordinate of the midpoint of the segment.

Example:

$$|x - 3| = 7$$

$$x - 3 = 7$$

$$x = 7 + 3 = 10$$

$$x - 3 = -7$$

$$x = -7 + 3 = -4$$



Coordinate of midpoint is 3.

- $|a - 4| = 1;$
- $|b - 2| = 3;$
- $|c + 1| = 2;$
- $|d + 3| = 4;$

4. Compare **without** doing any calculation:

$$2.4 \cdot 4.2 \dots 4.2;$$

$$0.3 \cdot 3 \dots 3;$$

$$0.3 \cdot 3 \dots 0.3$$

$$1.2:4 \dots 1.2;$$

$$1.2:0.4 \dots 1.2$$

$$0.4:1.2 \dots 0.4$$

Do the calculations and check.

5. Compare if possible (a is a positive ($a > 0$) number, not necessarily a natural number):

$$a \cdot \frac{1}{2} \dots a;$$

$$a \cdot 0.3 \dots a;$$

$$a:\frac{1}{2} \dots a;$$

$$a \cdot 2 \dots 2;$$

$$a:0.7 \dots a;$$

$$a:0.7 \dots 0.7;$$

$$a \cdot 100 \dots 1000;$$

$$a:100 \dots 1000$$

6. A swimming pool can be filled in 12 hours and emptied in 18 hours. One day while the pool is being filled, the drain is accidentally left open. How long will it take to fill the pool?

7. Find the weight of each shape, if the weight of pentagon is 40.

