

MATH 4: Homework 20

Due March 10, before the start of the class

Homework must be submitted on time—at least 15 minutes before the start of the class.

Homework will not be graded after the solutions are posted on Google Classroom.

Write the answers on separate sheets of paper, not between the lines.

1. Draw two different rectangles so that the ratio of the larger side to the smaller is 3 to 2.
2. The ratio of the sides of a rectangle is 5 to 3. The length of the longer side is 15. What is the length of the shorter side?
3. To do her homework, Julia solved math problems, wrote an essay, and did a history project. It took her 2 hours and 15 minutes to finish all the assignments. The ratios of the times she spends doing math, writing the essay, and doing the history project are 3:2:1. How much time did she spend on each of her subjects?
4. Usually, it takes Peter 1 hour and 20 minutes to drive to work. Yesterday, due to bad weather, Peter slowed down by 10 km/h, and it took him 1.5 hours to get to work. What is the distance between Peter's house and his work?
5. Evaluate (hint: represent decimals as fractions; for example, $5.7 = \frac{57}{10}$). The answer is 1.2) :



$$\frac{0.19 : 0.03 \cdot 0.75 \cdot 10.8}{1.2 \cdot 2.5 \cdot 5.7 : 0.4}$$

6. Solve the equations:

a. $0.68 - y = 0.6$;

b. $4.2 + a = 5$;

c. $5.4 - b = 1.4$

d. $2 : a = 0.2$;

e. $x \cdot 0.1 = 0.8$;

f. $y : 0.2 = 10$

7. Evaluate:

a. $-(-8) + 3$;

b. $-(12 + (-1))$;

c. $-(-10) + (-6)$;

d. $-((-3) + 1)$;

e. $-((-20) + (-10))$;

f. $-(-(6 + 4))$;