

Math 4a. Homework 13.

Problems marked with * are more difficult.



1. Solve the following equations:

a) $\left|x + \frac{1}{3}\right| = 2$

b) $\left|x - \frac{1}{5}\right| = 2$

c) $|2y| = \frac{1}{2}$

d) $|2y - 2| = 8$

2. Evaluate the following expressions in 2 ways: by first performing the operation in the parenthesis, and by first opening the parenthesis (follow the *example*:

$$34 - (3 - 4) = 34 - (-1) = 24 + 1 = 35$$

$$34 - (3 - 4) = 34 - 3 + 4 = 35 \quad)$$

$$26 - (18 + (-7)),$$

$$(3 - 23) - (4 - 10),$$

$$-84 - (-18 - 6),$$

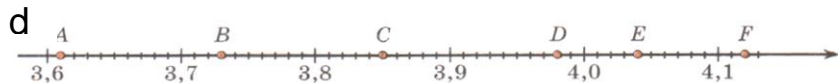
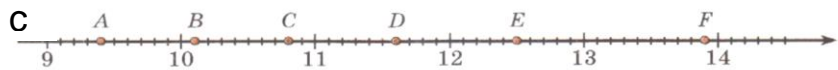
$$(-8 + 15) - (-6 - 20)$$

3. Write in decimal notation the following fractions:

a. $\frac{9}{10}; \frac{24}{100}; \frac{375}{1000}; \frac{29}{100}; \frac{47}{1000}; \frac{7}{10}; \frac{999}{1000}; \frac{99}{100}$

b. $\frac{1}{2}; \frac{3}{4}; \frac{2}{5}; \frac{7}{20}; \frac{18}{25}; \frac{23}{50}$

4. Write the coordinates of the points A, B, C, D, E, F



5. Compare:

0.756 0.76; 0.12345 0.0102030405;
 3.4208 3.4028; 0.32032032 0.321;
 4.0986 4.1; 2.57043566 2.57034566666;
 12.576 9.99999; 7.77777777 7.77777777;

6. Fill empty spaces with missing digits to get the right expressions:

a)
$$\begin{array}{r} \square 7 . \square 6 \square \\ + 5 . 9 0 0 \\ \hline 3 \square . 4 \square 4 \end{array}$$

b)
$$\begin{array}{r} \square 4 . 7 \square 1 \\ - 1 \square . 2 8 \square \\ \hline 2 1 . \square 7 1 \end{array}$$

c)
$$\begin{array}{r} 3 . \square 5 \square 8 2 \\ + \square . 2 \square 7 4 \square \\ \hline 4 . 0 2 9 \square 2 \end{array}$$

d)
$$\begin{array}{r} 1 \square . 2 \square 3 0 \square \\ - 8 . 0 5 \square 2 7 \\ \hline 6 . \square 2 5 \square 3 \end{array}$$

7. 6000 people live in three villages altogether. In the first village there are twice as many inhabitants as in the second village and in the third village the number of inhabitants is 500 less than in the first one. How many people live in each village?

8. Can you trace the following figures without lifting a pencil and without retracing any edge?

