HOMEWORK 5,
October, 25 2020

1. Compute:

a) $-35+(-9)=$

b) $-1\frac{3}{8}+\left(-2\frac{5}{6}\right)=$

c) $\left(-3\frac{3}{7}+\left(-2\frac{1}{14}\right)\right)+(-1.4)=$

d) $-2.3+(-3.9)=$

e) $\frac{5}{8}+\left(-\frac{7}{12}\right)=$

f) $-21-(-19)=$

g) $-2\frac{2}{5}-\left(-3\frac{3}{8}-2\frac{1}{4}\right)=$

h) $\left(-4\frac{2}{7}+3\frac{3}{14}\right)-1\frac{1}{2}=$

i) $-3.3+9.6=$

k) $4.7-8.1=$

l) $-\frac{8}{15}-(-0.4)=$

m) $-3\frac{1}{2}-\left(-1\frac{3}{4}\right)=$

2. Find the absolute value:

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

b) $|0.564|=$

c) $\left|3\frac{4}{5}\right|=$

d) $\left|-3+2\frac{1}{7}\right|=$

e) $\left|\frac{5-|-3-5|}{|-15-(-3)|}\right|=$

f) $\left|\frac{-7(a-2)}{9}\right|=$

3. Solve each equation for x:

a) $|5x| = 15$

b) $|3x - 7| = 10$

c) $\left|4x - \frac{2}{3}\right| = 4\frac{2}{3}$

d) $\frac{|2x-5|}{12} = \frac{5}{6}$

e) $3 + |4x + 15| = 48$

f) $|y - 8y + 6| - 3 = 12$

4. Simplify:

$$\frac{2\frac{3}{4} \div 1.1 + 3\frac{1}{3}}{2.5 - 0.4 \cdot 3\frac{1}{3}} \div \frac{5}{7} - \frac{\left(2\frac{1}{6} + 4.5\right) \cdot 0.375}{2.75 - 1\frac{1}{2}} =$$

Write an equation to solve each of the following word problems:

5. Mathematics textbooks are 4 times more expensive than the ELA textbooks. Julia can buy 3 mathematics textbooks and have 4 dollars left, or 10 ELA textbooks and have 10 dollars left. What is the price of a mathematics textbook? ELA textbook?

6. If Alice comes to a store with 27 dollars and buys 4 jumping ropes, she will have the same amount of money left as if she comes to a store with 42 dollars and buys 7 jumping ropes. What is the price of a jumping rope?

7. Natasha asked her students to multiply a given number by 4 and then add 15. However, Alex multiplied the number by 15 and then added 4 – and he still got the correct answer. What was the original number?