

1. Solve equations. Find ALL solutions that will make each statement a true statement:

$$|-x + 100| = 21$$

$$-|1 + x| = -80$$

2. Circle pairs of opposite numbers:

1. a) $\frac{1}{15}$ and 15 b) $-\frac{1}{15}$ and $\frac{1}{15}$ c) $-\frac{1}{15}$ and $\frac{15}{1}$ d) $-\frac{1}{15}$ and $-\frac{15}{1}$

2. a) $-\frac{32}{45}$ and $-\frac{45}{32}$ b) $-\frac{32}{45}$ and $\frac{45}{32}$ c) $-\frac{32}{45}$ and $\frac{32}{45}$ d) -15 and 15

3. Solve equations:

$$a) \frac{1}{5}x + 11 = 8 - \frac{3}{5}x$$

$$b) \frac{1}{3}y + 2 = 1$$

$$c) 8 - \frac{1}{4\frac{1}{7}z} = 1$$

4. Compute

$$a) \frac{\frac{3}{14} + \frac{1}{2}}{\frac{8}{10} + \frac{1}{2}} =$$

$$b) \frac{9}{7 + 2\frac{1}{7}} =$$

$$c) \frac{\frac{5}{12} - \frac{3}{16}}{\frac{2}{3} + \frac{3}{4}} =$$

5. A farmer has a cow, a goat and a goose. The cow and the goat will eat all the grass on his meadow in 45 days, the cow and the goose will eat all the grass on the same meadow in 60 days, and the goat and the goose will eat all the grass on the meadow in 90 days. How many days will it take them altogether to eat all the grass on the meadow? (we assume that the new grass is not growing.)
6. A cook put 3 tablespoons of salt into a pot with 4 liters of water and 2 tablespoons of salt into a pot with 3 liters of water. Which pot has saltier water?
7. There are singers and dancers in our class. 15 of all singers also dance and 14 of all dancers also sing. Are there more singers or dancers in our class?

8. Open parenthesis:

$$a + (b - c) =$$

$$b - (c + (d - f - s + t)) =$$

$$a(b + c - d) =$$

$$m(a - 25 - 3) =$$