1. Solve the following equations:

a. $86 + x = 123$ b. $128 - m = 54$ c. $z - 35 = 43$

_____   _____   _____

_____   _____   _____

_____   _____   _____

2. Solve the following equations (substitution):

Example: $(y + 5) \div 3 = 7$

substitution: $y + 5 = z$
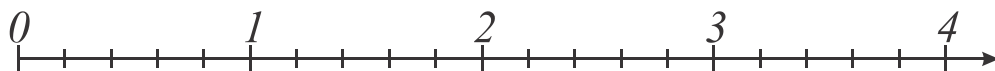
$z \div 3 = 7$

$z = 7 \times 3 = 21$

$y + 5 = 21$

$y = 21 - 5 = 16$ *Check:* $(16 + 5) \div 3 = 7$

a) $(x - 12) \times 8 = 56$ b) $124 \div (y - 5) = 31$

3. Mark following fractions on the number line:

$$\frac{1}{5}, \quad \frac{3}{5}, \quad \frac{3}{3}, \quad \frac{7}{5}, \quad \frac{10}{5}$$

0   *1*   *2*   *3*   *4*

4. Rewrite these expression of division as fractions:

Example: $3 \div 5 = \frac{3}{5}$

$9 \div 5 =$ $\qquad\qquad$ $5 \div 11 =$ $\qquad\qquad$ $2 \div 6 =$

5. Compare:

a) $\frac{3}{5}$ $\quad$ $\frac{2}{5}$ $\qquad\qquad$ b) $\frac{3}{5}$ $\quad$ $\frac{3}{8}$ $\qquad\qquad$ c) $\frac{3}{6}$ $\quad$ $\frac{1}{2}$

d) $\frac{1}{5}$ $\quad$ $\frac{5}{1}$ $\qquad\qquad$ e) $\frac{4}{12}$ $\quad$ $\frac{3}{4}$ $\qquad\qquad$ f) $\frac{2}{11}$ $\quad$ $\frac{1}{12}$

g) $\frac{4}{7}$ $\quad$ $\frac{1}{2}$ $\qquad\qquad$ h) $\frac{4}{9}$ $\quad$ $\frac{4}{10}$

6. Calculate:

$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} =$ $\qquad\qquad$ $\frac{2}{7} + \frac{1}{7} =$ $\qquad\qquad$ $\frac{7}{9} - \frac{3}{9} =$

7. In the school cafeteria, there are 12 tables. There are 10 seats at each table. At lunch time $\frac{4}{5}$ of all seats were occupied by students. How many students were in the cafeteria during the lunch?

8. I have 30 pencils.   During my math class, I distributed 10 pencils to students who forgot to bring theirs, what fraction of my pencil I distributed?

 If I have 15 students in my class, what fraction of students forgot their pencils?

9. **S**plit each section of the second rectangle into 2 and find the fraction of small squares that is equivalent to the fraction of squares in the first figure

$$\frac{3}{8}$$

X ?

X ?
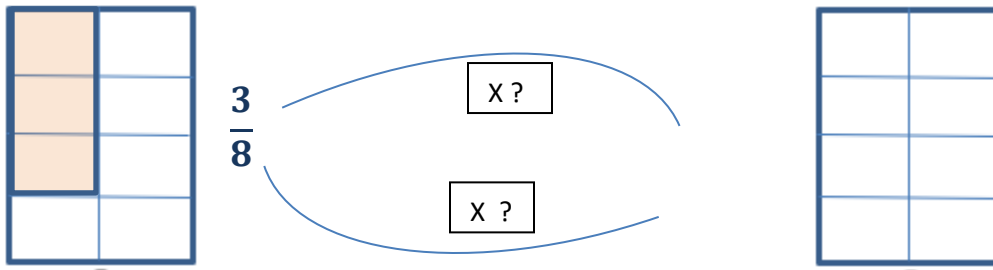
10. Simplify:

    a) $\dfrac{4}{20}$ **b)** $\dfrac{6}{8}$ **c)** $\dfrac{12}{18}$

    f) $\dfrac{12\times5+12\times9}{12\times21} =$ **g)** $\dfrac{14\times5+14\times2}{28} =$

11. Write an equation for the following problems:

    a. 3 packages of cookies cost a dollars. How many dollars do 5 of the same packages cost?

    b. 5 bottles of juice cost b dollars. How many bottles can one buy with c dollars?