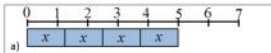
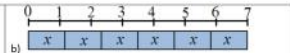
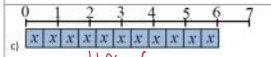

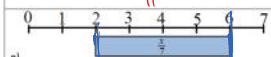
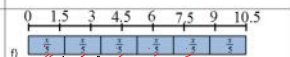


Name: _____ Date: _____

Math 8 Assignment 11.1 Solving Basic Math Equations

1. Given each diagram, find the length of each bar:

<p>a) </p> <p>$4x = 5$ $x = \frac{5}{4}$ $x = 1.25$</p>	<p>b) </p> <p>$6x = 7$ $x = \frac{7}{6}$</p>
<p>c) </p> <p>$11x = 6$ $x = \frac{6}{11}$</p>	<p>d) </p> <p>$13x = 14$ $x = \frac{14}{13}$</p>
<p>e) </p> <p>$\frac{x}{7} = 6 - 2$ $\frac{x}{7} = 4$ $x = 28$</p>	<p>f) </p> <p>$6(\frac{x}{6}) = \frac{21}{6} \cdot \frac{5}{6}$ $x = \frac{35}{4}$ $x = 8.75$</p>

2. Given each equation, solve for the value of "x". Write your answer as a fraction if required:

a) $3x = 12$ $\frac{3x}{3} = \frac{12}{3}$ $x = 4$	b) $4x = 18$ $\frac{4x}{4} = \frac{18}{4}$ $x = \frac{9}{2}$	c) $\frac{x}{3} = 5.5$ $x = 3 \times 5.5$ $x = 16.5$
d) $5x = 19$ $\frac{5x}{5} = \frac{19}{5}$ $x = \frac{19}{5}$	e) $\frac{x}{5} = 7.7$ $x = 5 \times 7.7$ $x = 38.5$	f) $\frac{x}{4} = 14.2$ $x = 4 \times 14.2$ $x = 56.8$
g) $\frac{3x}{4} = 8.2$ $\frac{3x}{3} = \frac{32.8}{3}$ $x = \frac{32.8}{3}$ $x = 10.93$	h) $\frac{4x}{5} = 20$ $x = 25$	i) $\frac{3x}{2} = \frac{18}{16}$ $x = \frac{18}{16} \cdot \frac{2}{3}$ $x = \frac{1}{4}$

3. The time (hours) that it takes an object to travel a certain distance(km) is equal to the distance divided by the speed (km/hr). $t = \frac{d}{s}$. How far can a car travel in 3.5 hours at 65km/hr?

DISTANCE = $\frac{65 \text{ km}}{\text{hr}} \times 3.5$
 $= 227.5 \text{ km}$



4. 90% of all Eric's friends are in grade 8. If he has 27 friends in grade 8, how many friends does he have altogether?

LET "x" BE THE NUMBER OF FRIENDS THAT ERIC HAS.
EQN: $\frac{9}{10}x = 27$
 $x = \frac{27 \times 10}{9} = 30$ ERIC HAS 30 FRIENDS

5. Betty earns commission on 2/9 of all her sales as a realtor. If she earned \$4200 in commission this month, how much was her total sales?

LET "x" BE BETTY'S TOTAL SALES AS A REALTOR
EQN: $\frac{2}{9}x = 4200$
 $x = 4200 \cdot \frac{9}{2} = 18,900$

6. Kayla worked 195.5 days on her job and completed 97.75% of her contract. How many more days does she need to work to complete her work?

$\frac{97.75}{100} = \frac{195.5}{x}$
 $0.9775x = 195.5$
 $x = \frac{195.5}{0.9775}$
 $x = 200$
 $200 - 195.5 = 4.5$ DAYS LEFT

7. Nancy can cut 30% of her lawn in 2.5 hours. How many hours does she need to cut the entire lawn?

$\frac{30}{100} = \frac{2.5}{x}$
 $0.3x = 2.5$
 $x = \frac{2.5}{0.3} = 8.3333$

8. Solve the following equations:

i) $\frac{3x}{2} = \frac{5}{4}$
 $3x = \frac{5}{2}$
 $x = \frac{5}{6}$

ii) $\frac{5}{x} = \frac{13}{4}$
 $\frac{5}{13} = \frac{x}{4}$
 $x = \frac{20}{13}$

iii) $\frac{2}{3}x + 1 = 7$
 $\frac{2}{3}x = 6$
 $x = 9$

3) The time (hours) that it takes an object to travel a certain distance (km) is equal to the distance divided by the speed (km/hr). How far can a car travel in 3.5 hours at 65km/hr?

$\frac{d}{65} = 3.5$
 $d \times 65 = 3.5 \times 65$
 $d = 227.5 \text{ km}$

$$b) \quad d = 227.5 \text{ km}$$