

1.) a) 72dollars to 880dollars

$$= \frac{72}{880}$$

-1 dollar to 12.22dollars

b) 16minutes to 1 hour

$$= \frac{16}{60}$$

=1 min to 3.75min

2.) percent of 24

$$= \frac{6}{24} \times 100$$

$$= 0.25 \times 100$$

$$= 25\%$$

3.) 12% of what number is 9

$$= 12\% = 9$$

$$100\% =$$

$$= \frac{100}{12} \times 9$$

$$= 75$$

4.) Discount

$$= 15\% \text{ of } 150 \text{ SR}$$

$$= \frac{15}{100} \times 150$$

$$= 22.5 \text{ SR}$$

5.) Equal ratios

$$= \frac{1.3}{6.2} = 6:1.5$$

$$= \frac{4.5}{8.10} = 2:2$$

$$= \frac{5.3}{10.9} = 2:3$$

$$= \frac{2.3}{3.2} = 0.6:1.5$$

$$:4:5=8:10$$

6.) Proportion

$$= \frac{5}{7} = \frac{x}{49}$$

$$= 7x = 245$$

$$x = 35$$

$$7.) = \frac{4}{8}, \frac{x}{24}, \frac{36}{z}$$

$$= A:B:C$$

$$= 8x = 48$$

$$X=6$$

$$=4z=288$$

$$Z=72$$

$$:x=6 \text{ \& } z=72$$

8.) Corresponding sides ratio

$$\begin{aligned} &= \frac{22}{11} : \frac{14}{7} \\ &= \frac{1}{2} \end{aligned}$$

9.) Value of x

$$\begin{aligned} &= \frac{50}{x} = \frac{60}{24} \\ &= 60x = 1200 \\ X &= 20 \end{aligned}$$

10.) 88% as a fraction

$$\begin{aligned} &= \frac{88}{100} \\ &= \frac{22}{25} \end{aligned}$$

$$11.) \quad \frac{x}{2} = 16 + 8$$

$$= \frac{x}{2} = 24$$

$$= x = 48$$

12.) Solve

$$\begin{aligned} &= 34 = 8 - 2x \\ &= -2x = 8 - 34 \\ &= -2x = -26 \\ X &= 13 \end{aligned}$$

13.) Solve

$$\begin{aligned} &= \frac{3}{8} - \frac{1}{4}x = \frac{1}{2}x - \frac{3}{4} \\ &= \frac{3}{8} + \frac{3}{4} = \frac{1}{2}x + \frac{1}{4}x \\ &= \frac{9}{8} = \frac{3}{4}x \\ X &= \frac{3}{2} \end{aligned}$$

14.) Solve

$$\begin{aligned} &= \frac{3}{4}x - 8 = \frac{1}{4}x + 9 \\ &= \frac{3}{4}x - \frac{1}{4}x = 9 + 8 \\ &= \frac{1}{2}x = 17 \\ X &= 34 \end{aligned}$$

15.) Solve

$$\begin{aligned}
 &= \frac{x-8}{12} = \frac{15}{3} \\
 &= 3x - 24 = 180 \\
 &= 3x = 204 \\
 &X = 68
 \end{aligned}$$

16.) Solve

$$\begin{aligned}
 &= 6.5x - 1.25 = 25.75 - 0.25x \\
 &= 6.5x + 0.25x = 25.75 + 1.25 \\
 &= 6.75x = 27 \\
 &X = 4
 \end{aligned}$$

17.) a) $= x - 25 = -18 + 2x$

$$\begin{aligned}
 &= 3x = 7 \\
 &X = \frac{7}{3}
 \end{aligned}$$

b) $= 4(r + 1) - (3r + 5) = 1 - 3r$

$$\begin{aligned}
 &= 4r + 4 - 3r + 5 = 1 - 3r \\
 &4r - 3r + 3r = 1 - 9 \\
 &= 4r = -8 \\
 &r = -2
 \end{aligned}$$