HW: What's The Problem

1.) $x + x + 1 = -17$

$2x + 1 = -17$

$-1 \quad -1$

$\frac{2x}{2} = \frac{-18}{2}$

$x = -9$

$x + 1 = -9 + 1 = -8$

ans: -9 & -8

2.) $x + 2(x+2) = (x+4) - 20$

$x + 2x + 4 = x - 16$

$3x + 4 = x - 16$

$-x \quad -x$

$2x + 4 = -16$

$-4 \quad -4$

$\frac{2x}{2} = \frac{-20}{2}$

$x = -10$

$x+2 = -10+2 = -8$

$x+4 = -10+4 = -6$

ans: -10, -8, & -6

3.) $4(x+2) = 3x + 29$

$4x + 8 = 3x + 29$

$-3x \quad -3x$

$x + 8 = 29$

$-8 \quad -8$

$x = 21$

$x + 2 = 21 + 2 = 23$

ans: 21 & 23

4.) $3x - 3 = (x+8) + 15$

$3x - 3 = x + 23$

$-x \quad -x$

$2x - 3 = 23$

$+3 \quad +3$

$\frac{2x}{2} = \frac{26}{2}$

$x = 13$

$3(13) - 3 = 36$

ans: 13 & 36

5.) $3(2x+1) = 5x + 10$

$6x + 3 = 5x + 10$

$-5x \quad -5x$

$x + 3 = 10$

$-3 \quad -3$

$x = 7$

$2(7) + 1 = 15$

ans: 7 & 15

6.) $P = 2l + 2w$

$72 = 2(3x) + 2(x)$

$72 = 6x + 2x$

$\frac{72}{8} = \frac{8x}{8}$

$x = 9$

$3(9) = 27$

ans: 9cm & 27cm

& 21

7.) $P = 2l + 2w$

$124 = 2(3x + 16) + 2(x - 2)$

$124 = 6x + 32 + 2x - 4$

$124 = 8x + 28$

$-28 \qquad -28$

$\frac{96}{8} = \frac{8x}{8}$

$x = 12$

$3(12) = 36$

ans:

width = 12 in

length = 36 in

8.) Perimeter Sq. $= 3$(Perimeter tri)

$4(x + 10) = 3(3x)$

$4x + 40 = 9x$

$-4x \qquad -4x$

$\frac{40}{5} = \frac{5x}{5}$

$x = 8$

$8 + 10 = 18$

ans:

side of triangle = 8 m

9.) $3(3x+1)+3x = 4(2x-1)+4x$

$9x+3+3x = 8x-4+4x$

$12x+3 = 12x-4$

$-12x \quad -12x$

$3 \neq -4$

no solution

10.) $100 \times [0.03w + 1.2 = 9.2 + 0.43w]$ (hundredth)

$3w + 120 = 920 + 43w$

$-3w \quad -3w$

$120 = 920 + 40w$

$-920 \quad -920$

$\frac{-800}{40} = \frac{40w}{40}$

$w = -20$

* mult. the whole equation by 100 to get rid of the decimal