Practice: Solving Equations

Directions: Solve each equation. <u>You must show your work</u>!

1) $8x - 4 = 20$ 2) $8 = 38 - 5x$ 3) $\frac{1}{3}x - 6 = 9$ 4) Check your answer for #2.

5) Solve <u>and</u> check: $\frac{6}{5}a - 4 = 2$ 6) $1\frac{2}{3}a = \frac{9}{2}$ 7) $14n + 3 = 9n + 78$

8) $2.5n - 15 = 4n$ 9) $3n - 4 + n = 22$ 10) $19 = -3 + 7p + 1 - 4p$

11) $3p - 5 = 8p + 45$ 12) $1 - 2p = -5p + 25$ 13) $-9p + p + 6 = -3$

14) $4(x + 6) = 32$ **(solve this TWO different ways)** 15) $-2(3a - 5) = 4(a + 10)$

16) Check your answer for three of the problems from 7-15.

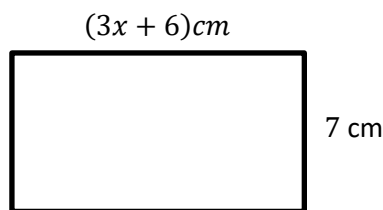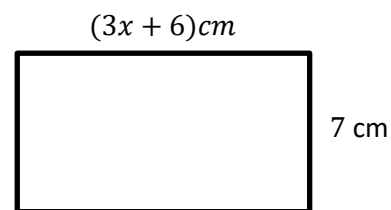|		

17) $5(12 - 4x) + 46 = 2(3x + 8) - 11x$

18) $20 - 2(x + 3) = 5 - (4 - 2x)$

19) $\frac{9g+30}{3} = 5g$

20) $\frac{3}{5}g - 5 = \frac{1}{5}g + 15$

21) $3g - 5 + 10g + 11 - 9g = 17 + g - 23$

22) $\frac{3}{4}w = \frac{1}{5}w + 33$

23) If the area is 84 cm², find the value of x.

$(3x + 6)cm$

7 cm

24) If the perimeter is 62 cm, find the value of x.

$(3x + 6)cm$

7 cm

25) Four consecutive integers have a sum of 90. Write and solve an equation to find the value of the four integers.

26) Justin and Tyson are beginning an exercise program to train for football season. Justin weighs 150 lb and hopes to gain 2 lb per week. Tyson weighs 195 lb and hopes to lose 1 lb per week.

a. Write and solve an equation to find out when their weights will be the same.

b. When their weights are the same, what will that weight be?

27) 12 years ago, Juan was 2/3 the age he is now. Write and solve an equation to figure out how old he is now.