FdM1 **Unit 1 Hw #11 Section 1.7 Literal Equations** Name: _____

Solve each equation for the variable indicated.

1. $A = lw$, for l
2. $d = rt$, for r
3. $V = lwh$, for w
4. $P = 2l + 2w$, for w
5. $C = 2\pi r$, for r
6. $V = \pi r^2 h$, for h
7. $15 = 3n + 6p$, for n
8. $28 = t(r + 4)$, for t
9. $\frac{k-2}{5} = 11j$, for k
10. $a(q - 8) = 23$, for q
11. $A = 2\pi r^2 + 2\pi rh$ for h
12. $y = mx + b$, solve for x

Complete each word problem. Show all equations, pictures/diagrams, and work! Put your work on a separate sheet of paper and staple it to this worksheet.

13.) ***Using Example 2a***: The width of a rectangle is 5 less than the length. The perimeter of the rectangle is 50 meters. Find the length and width.

14.) ***Using Example 2b/2c***: The sum of two consecutive odd integers is 56. Find the integers.

15.) ***Using Example 2d***: Barry is on a $135 budget for his school supplies. He needs 1 pack of pencils, notebook paper, a graphic calculator, and 3 binders. The store that Barry goes to has the following prices: 1 pack of pencils = $3, calculator = $85 , and $6.50 for each binder. If each pack of notebook paper costs $4.75, how many packs of notebook paper can Barry buy (not including tax because it's a tax free weekend) with his budget also including his other school supplies?

16.) ***Using Example 2e***: One health club charges $44 sign-up fee and $30 per month. Another health club charges $99 sign-up fee and $25 per month. What number of months will the cost be the same?

17.) ***Using Example 2f***: A canary's heart beats 200 times in 12 seconds.

a.) What is the canary's heart rate? Keep answer as a reduced fraction.

b.) How many seconds does it take for the canary's heart to beat 700 times?