Unit 1 Review

Setup and solve each problem below using proportions. Show all work.

1. The ratio of men to women at a class is 6 to 5. How many women students are there if there are 3600 men?

2. If 3 pounds of apples costs $0.90, how much will 10 pounds cost?

3. You find that your watch gains 2 minutes in 6 hours. How much will it gain in 3 days?

4.
$$\frac{2}{6} = \frac{x}{2}$$

5.
$$\frac{5}{8} = \frac{a+1}{9}$$

6.
$$\frac{k+2}{8} = \frac{k}{5}$$

Solve each equation. Show all work.

7) $-8(7-k) = 8(k+6) - 6$

8) $-8(-7+7x) + 4x = -8(7+3x)$

9) $-4(7-5x)-6x=-7(6-x)$

10) $7(3b+3)=21b-2$

11) $-10+12x=2(6x-5)$

12) $-8(7a-5)-8a=6a+5(1-7a)$

Use dimensional analysis to solve the following problems.

13. In my chemistry class, 28 students are each given 3 pens. If there are 8 pens in one package, priced at $1.88 per package, what is the total cost of giving away pens?

14. You find 13,406,190 pennies. How many dollars did you actually find? If each penny weighs 4 grams, how much did all that loot weigh in lbs.? (2.2 lbs = 1 Kilogram)