Math Worksheet 1

1. ① $5 + 6t_1 + 7t_2 = 12$
② $4 + 3t_1 - 6t_2 = 3$

① $t_1 = \frac{7 - 7t_2}{6}$

② $4 + 3\left(\frac{7 - 7t_2}{6}\right) - 6t_2 = 3$

$1 + \frac{7}{2} = \frac{19}{2} t_2$ so $\Rightarrow \frac{2 + 7}{19} = t_2 = 9/19$

$4 + 3t_1 - 6(9/19) = 3$

$3t_1 = -1 + 54/19 = 35/19$ so $t_1 = 35/57$

2. ① $6 + 5t_1 + t_2^2 = 1$
② $t_1 + t_2 = -7$ $\quad t_1 = -7 - t_2$

① $5 + 5(-7 - t_2) + t_2^2 = 0$
① $-30 - 5t_2 + t_2^2 = 0$

$t_2 = \frac{+5 \pm \sqrt{25 + 120}}{2} \sim \frac{5 \pm 12}{2}$

3) $5b + 3(a + 15 + b)$

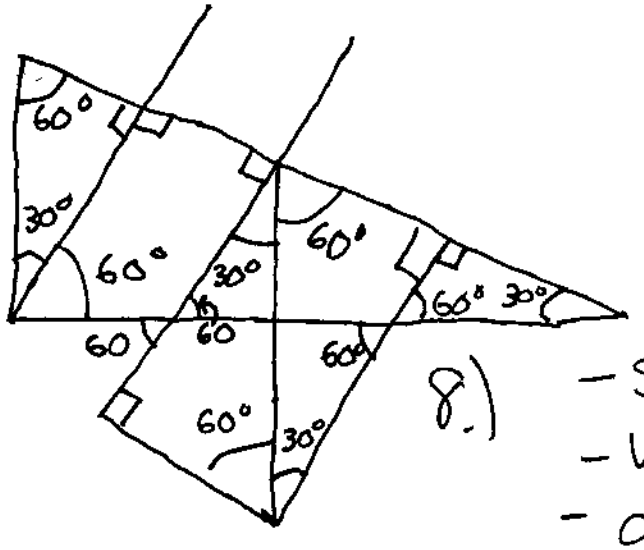
Math Worksheet II

4. $a = 8\cos 51^\circ = 8\sin 49^\circ$
$b = 8\sin 51^\circ = 8\cos 49^\circ$

5. $\frac{8}{\sin 49^\circ} = a = \frac{8}{\cos 51^\circ}$ $\quad b\tan 49^\circ = 8$

6.)

7.)



8.)
- Similiar triangles
- Vertical Angles are congruent
- alternate interior angles are congruent

9.) $m = \frac{4.45 - 3.14}{-3.69 + 2.23} = -.897$

$y - 4.45 = -.897(x - 2.23)$

$y = -.897x + 6.45$

10) $-.897$ (for all x)