

## Math 70 Quiz #5 Answers

1. (a) Combining like terms:  $5x - 2.4y - x - 8.2y = \boxed{4x - 10.6y}$   
(Note:  $5x - 1x = 4x$  and  $-2.4y - 8.2y = -10.6y$ )
- (b) Distributing the  $-6a$ :  $-6a(3a - \frac{1}{2}b) = -6a(3a) - (-6a)(\frac{1}{2}b) = \boxed{-18a^2 + 3ab}$
- (c) Distributing the  $2x$  first and then combining like terms:  $2x(x - 3) - x^2 + 5x^2 = 2x^2 - 6x - x^2 + 5x^2 = \boxed{6x^2 - 6x}$
- (d) Distributing the inner parenthesis first:  $10t - [5t + 2(3t + 1)] = 10t - [5t + 6t + 2]$

Now, you could either distribute the  $-1$  on the brackets or you could combine the like terms on the inside of the brackets and then distribute the  $-1$ . I am going to combine the like terms first, but keep in mind that you should get the same answer either way.

$$\begin{aligned} 10t - [5t + 6t + 2] &= 10t - [11t + 2] \\ &= 10t - 11t - 2 \\ &= \boxed{-t - 2} \end{aligned}$$

2. To evaluate, substitute  $x = -2$  in place of  $x$  in the expression.  $4(-2)^2 + (-2) - 9 = 4(4) + (-2) - 9 = 16 + (-2) - 9 = 16 - 2 - 9 = \boxed{5}$

3. Substitute  $C = 25$  into the formula:  $F = \frac{9}{5}(25) + 32 = 45 + 32 = \boxed{77^\circ \text{ F}}$