Round-up Quiz 2

1. What are the values of x for which $x^2 - 3x - 18 = 0$?

   (a) $x = -6$;

   (b) $x = -3$;

   (c) $x = -3$ or $x = 6$;

   (d) $x = 3$ or $x = 6$;

   (e) $x - 2$ or $x = 6$.

2. The inequality $2x > x + 10 > -x$ means *the same thing* as which two inequalities?

   (a) $2x > x + 10$ *or* $x + 10 > -x$;

   (b) $2x > x + 10$ *and* $x + 10 > -x$.

3. Solving the correct choice in Question 2 gives which solutions to the inequality $2x > x + 10 > -x$?

   (a) $x > 10$ *or* $x < -5$;

   (b) $x > 10$ *or* $x > -5$;

   (c) $x > 10$ *and* $x < -5$;

   (d) $x > 10$ *and* $x > -5$.

4. If $2x + y = -8$ and $-4x + 2y = 16$, then what is the value of y?

   (a) $y = -4$;

   (b) $y = -2$;

   (c) $y = 0$;

   (d) $y = 2$;

(e) $y = 4$.

5. Myself and a friend are playing a high-low game with a deck of playing cards. I cut the deck and pick a Jack of Hearts then I replace the card. What is the probability that my friend choses a card higher than mine (we play the game with an ace higher than a king)?