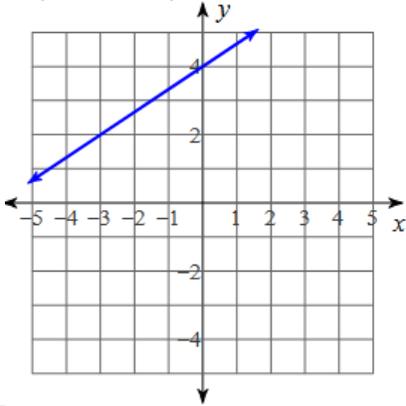


Name: _____

Unit 12 Review

Algebra Review: $\frac{1}{2}$ point each.

<p>1) $-8b - 26 > -4 - (5b + 4)$</p>	<p>2) $-x - 21 = 7x + 7(8x - 3)$</p>	<p>3) Write the equation of the line in slope-intercept form:</p> 
<p>4) Factor: $8x^2 - 10x + 2$</p>	<p>5) Factor: $16k^2 - 8k + 1$</p>	<p>6) Solve the system: $-6x + y = -20$ $6x - 2y = 28$</p>

A bag contains 24 red marbles, 17 maroon marbles, and 8 blue marbles. Find the following probabilities (2 points each)

1) P(picking a maroon marble)

2) P(not selecting a red marble)

3) P(green marble)

4) P(blue marble)

5) 68% of DoDDS students return to the same school the following year. If Mr. Sullivan has 128 students, about how many of them should he expect to return next year?

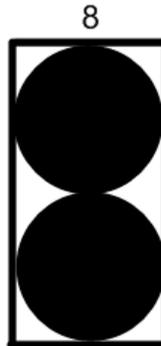
6) What's the probability of picking two diamonds from a standard deck of cards when you do not put the first card back in the deck before picking the second card?

Use the following information for #'s 7-8: A certain game requires you to pick a marble out of a bag that contains 10 red marbles and 5 white marbles and to to throw a 9-sided die.

7) A person wins if they pick a red marble and roll an even number. Find $P(\text{winning})$.

8) A person wins if they pick a red marble or roll an even number. Find $P(\text{winning})$.

9) Find the probability of being in the shaded region.



Applications and Extensions

10) DEEP IMPACT...the terrible movie...was about a meteor hitting the Earth. Well, that terrible, terrible movie was right...and there's a meteor headed straight at us. It's definitely going to hit the United States (3,679,245 square miles). What's the probability it will land in Wyoming (97,813 square miles) which is the least populated state?

11) Kelly takes a 10 question, multiple choice test (answers A, B, C, D or E). What's the probability that he guesses on the test and gets them all right?

12) Brust goes to the carnival decides to play two games. He plays the ring toss (23% chance of winning), and Pop-A-shot (15% chance of winning). What is the probability he'll win either game?