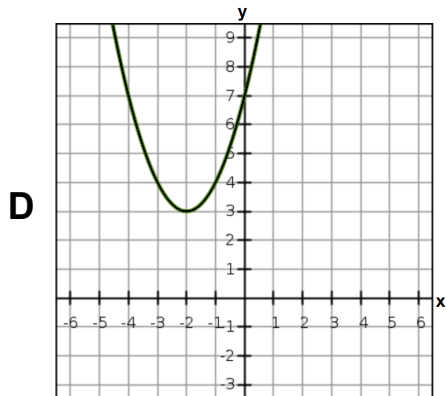
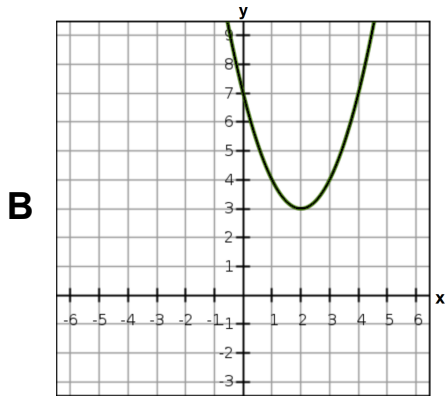
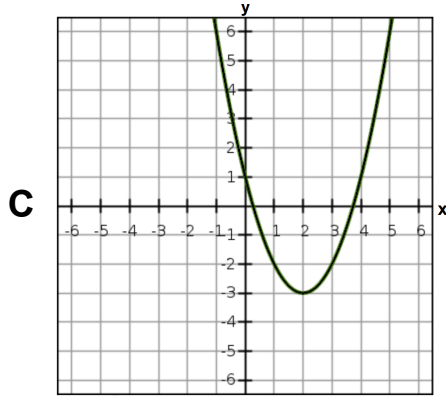
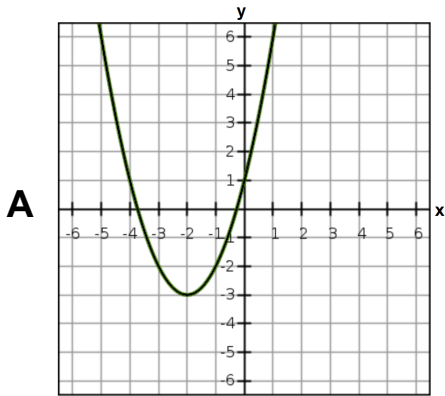


1) What is the equation in slope-intercept form of the line that crosses the x-axis at -8 and is perpendicular to the line represented by $y = -\frac{2}{3}x + 6$?

- A. $y = \frac{3}{2}x - 8$ C. $y = -\frac{3}{2}x - 12$
 B. $y = -\frac{2}{3}x + 8$ D. $y = \frac{3}{2}x + 12$

2) The graph of **quadratic parent function** f was transformed to create the graph of $g(x) = f(x + 2) - 3$. Which graph best represents g ?



3) A flower store sells purple lilac for \$3 each and yellow daisies for \$5 each. The store wants to make **at least** a \$120 a day selling these two flowers. Which inequality represents all possible combinations of **x, the number of purple lilac**, and **y, the number of yellow daisies** that will be sold?

- A. $5x + 3y \leq 120$ C. $3x + 5y \leq 120$
 B. $3x + 5y \geq 120$ D. $5x + 3y \geq 120$

4) A bank account earning annual compound interest was opened, and no additional deposits or withdrawals were made after the initial deposit. The balance in the account after x years can be modeled by $b(x) = 300(0.97)^x$. Which statement is the **best interpretation** of one of the values in this function?

- The initial balance of the account **A decreases** at a rate of 97% each year. The **initial** balance of the account was \$300.
 The balance in the account **B increases** at a rate of 3% each year. The balance in the account **D** at the end of third year is \$250.

5) An Electronic store sells two different kinds of laptops, the **Dell laptop**, and the **hp laptop**. On Monday the store sold 14 laptops and made \$9300. On Tuesday the store sold 10 laptops and made \$6650.

What is the price of one **Dell Notebook**? _____.

6) For several days, the number of visitors to the park and how many of these visitors buy the tickets for the concert later at the end of the month is shown in the table below.

Number of visitors to the park	Number of visitors who bought the concert tickets
110	18
320	54
155	23
240	39
178	26

Based on the table, what is the **best prediction** of the number of tickets sold if **460** people visited the park that day?

- A. 68 tickets B. 73 tickets C. 78 tickets D. 83 tickets

7) The graph of $f(x) = x^2$ was **transformed** to create the graph of $g(x) = f(x) + 4$. Which statement about the graphs is true?

- A The vertex of the graph of g is 4 units to the **right** of the vertex of the graph of f. C The graph of g is **narrower** than the graph of f
- B The y-intercept of the graph of g is 4 units **above** the y-intercept of the graph of f. D **reflection** of the graph of f across the x-axis.

8) What are the **domain and range** of $g(x) = -\frac{1}{4}(x - 12)^2 + 25$

- A Domain: All real numbers C Domain: All real numbers
 Range: $g(x) \leq 25$ Range: $x \leq 12$
- B Domain: $x \leq 12$ D Domain: $g(x) \geq 25$
 Range: $g(x) \leq 25$ Range: $x \leq 12$

9) A customer paid \$26 for 9 keychains and 5 mugs. A second customer paid \$3 **more than** the first customer for 7 keychains and 7 mugs. Which **system of equations** can be used to find the price in dollars of each **keychain, x**, and each **mug, y**?

- A $9x + 5y = 29$ C $5x + 9y = 29$
 $7x + 7y = 26$ $7x + 7y = 26$
- B $5x + 9y = 26$ D $9x + 5y = 26$
 $7x + 7y = 29$ $7x + 7y = 29$

10) The **cost** of mailing a box **varies directly** with the **weight** of the box. It costs \$18 to mail a 5 pound box. How much would it cost to mail a 12 pound box? _____



Bonus : $3x - 5y < 10$ represents a linear inequality. can the point (6,2) be considered a solution to the inequality? Why?