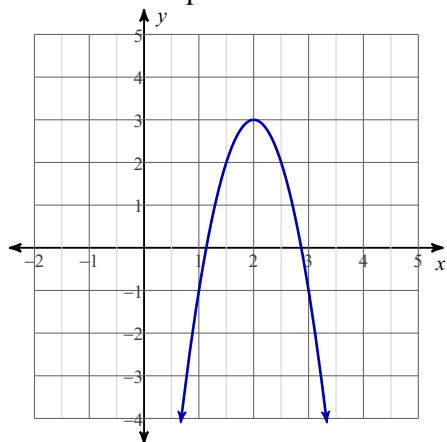


SM3-A HW #13-8 (More Graphs and Quadratics)

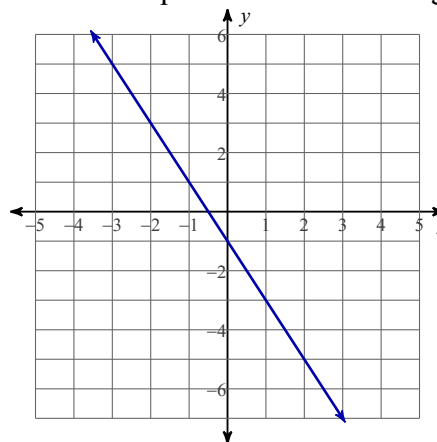
1) through:  $(0, -3)$  and  $(-4, 3)$

2) through:  $(-5, 4)$  and  $(2, -4)$

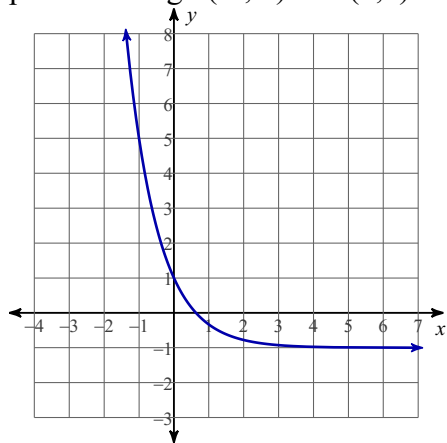
3) What is the equation?



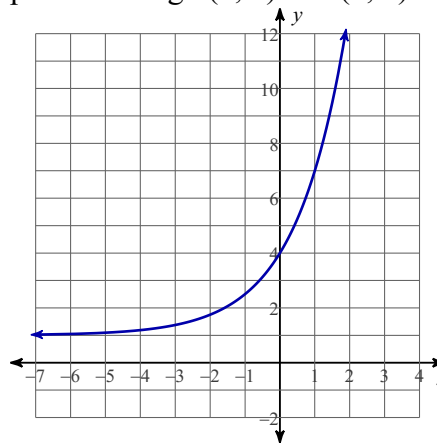
4) Write the equation that has been graphed.



5) Write the equation that has been graphed. It passes through  $(-1, 5)$  and  $(0, 1)$



6) Write the equation that has been graphed. It passes through  $(1, 7)$  and  $(0, 4)$

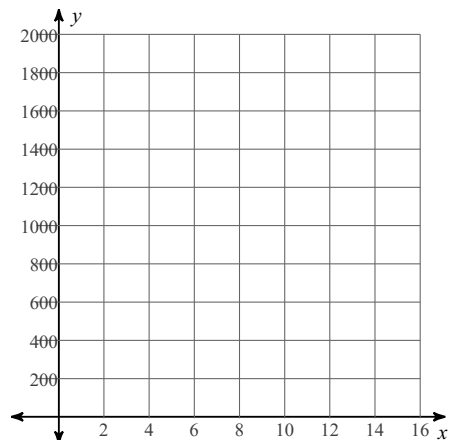


7) A small piece of iron was taken from a blast furnace and immediately placed into an oil bath to cool. When the metal was taken out of the furnace, its temperature was 1500 F. The oil bath temperature is 150 F. After 5 minutes, the temperature of the metal was 400 F.

a) Draw a graphical representation of the relationship between the quantities involved in this problem. Ensure that your graph is correctly labeled.

b) What is the equation representing the relationship between the two quantities. Round the base of your exponential to 3rd decimal place.

c) Using your equation, determine the temperature of the metal 8 minutes after it was placed in the oil bath.



a) Find the x-intercepts

b) Convert to Standard Form

8)  $y = (3x + 7)(2x - 1)$

9)  $y = (5x - 3)(6x + 1)$

a) What is the y-intercept? (Give your answer as an ordered pair.)

b) Convert to intercept form.

10)  $y = x^2 - 6x - 16$

11)  $y = x^2 + 7x + 6$

- a) Convert the equation to intercept form by factoring.  
 b) Write the x-intercepts as ordered pairs.

12)  $y = 5x^2 - 12x + 7$

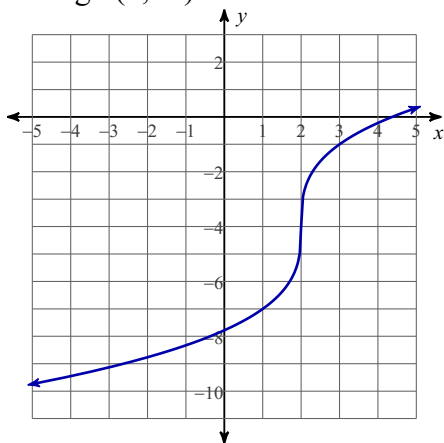
13)  $y = 2x^2 + x - 6$

- a) Convert the following equations to vertex form.  
 b) Solve the resulting equations by taking square roots.

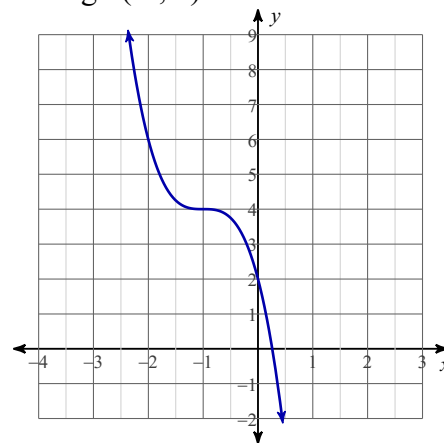
14)  $y = x^2 - 7x + 5$

15)  $y = x^2 + 11x + 3$

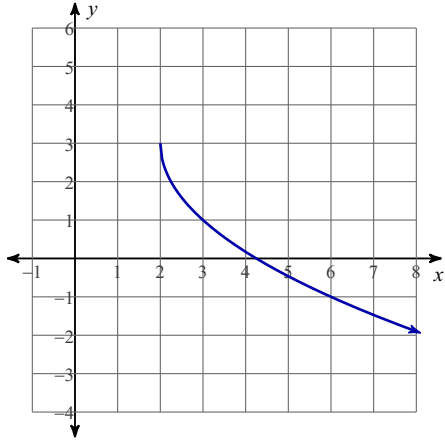
- 16) What is the equation of the graph? The inflection point is (2, -4) and it passes through (3, -1)



- 17) What is the equation of the graph? The inflection point is (-1, 4) and it passes through (-2, 6)



18) What is the equation? The endpoint is (2, 3) and it passes through (3, 1)



19) What is the equation?

