**Chapter 9 Practice Test** SCORE \_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Write the letter for the correct answer in the blank at the right of each question.***

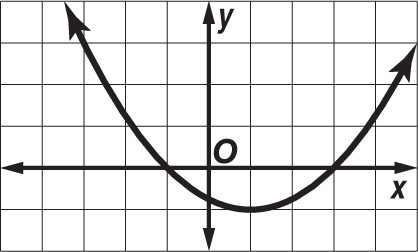
**1.** Consider the equation *y* = + 3*x* – 4. Determine whether the function has a maximum

or minimum value. State the maximum or minimum value. What are the domain and

range of the function?

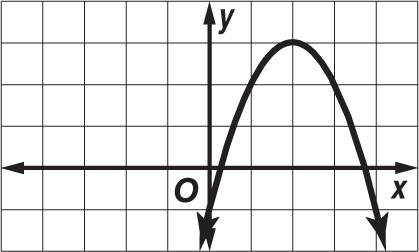
**2.** What is the equation of the axis of symmetry and the coordinates of the vertex of *y* = + 6*x* – 7?

**3.** Find the coordinates of the vertex of the graph of *y* = 4 – . Identify the vertex as a maximum or a minimum.



**4.** What are the roots of the quadratic equation whose related

function is graphed at the right?

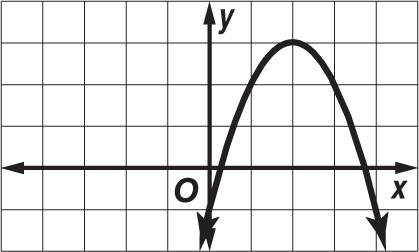


**5.** One root of the quadratic equation whose related function is

graphed lies between which two consecutive integers?

**A** 1 and 2 **C** 0 and –1

**B** 2 and 3 **D** 0 and 1



**6.** What is the general equation to the graph shown?

**7.** Describe how the graph of the function *g*(*x*) = –3 – 2 is

related to the graph of the function *f*(*x*) = .

**8.** Find the value of *c* that makes – 5*x* + *c* a perfect square trinomial.

**1.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**7.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**8.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 9 Practice Test** *(continued)*

**9.** Which value of *c* makes + 8*y* + *c* a perfect square trinomial?

**10.** Which equation is equivalent to + 4*x* – 6 = 0?

**F**  = 2 **G**  = 4 **H**  = 2 **J**  = 4

**11.** Solve the equation 2*x*2 + 3*x* – 5 = 0 by using the Quadratic Formula.

**12.** Determine the number of real solutions of *y* = – 8*x* + 10.

**13.** Determine the number of real solutions of – 5*n* – 6 = 0.

**14.** Which step is *not* performed in the process of solving + 8*r* + 5 = 0 by completing   
the square?

**A** Subtract 5 from each side. **C** Add 16 to each side.

**B** Factor + 8*r*. **D** Take the square root of each side.

**15.** Solve the equation 12 – 6 = –*v*by using the Quadratic Formula.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***x*** | 0 | 1 | 2 | 3 |
| ***y*** | 0 | 2 | 8 | 18 |

**16.** Look for a pattern in the table of values

to determine which model best describes

the data.

**F** linear **G** quadratic **H** exponential **J** none of these

**17.** Which function best models the data in Question 16?

**A** *y* = 2*x* **B** 2*x* + 1 **C** *y* = 2 **D** *y* =

**18.** What is the range of *y* = | 3*x* + 1 |? (fair warning- know all characteristics of the graph!)

**F** {all real num.} **G** {*y* | *y* ≥ 0} **H** {*y* | *y* ≥ 1} **J**

**Bonus** ?

**9.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**10.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**11.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**12.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**13.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**14.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**15.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**16.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**17.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**18.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**B.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_