TEST NAME: **Unit 5 Test "B"**
TEST ID: **4047643**
GRADE: **07 - Seventh Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **School Assessment**

Student: _____

Class: _____

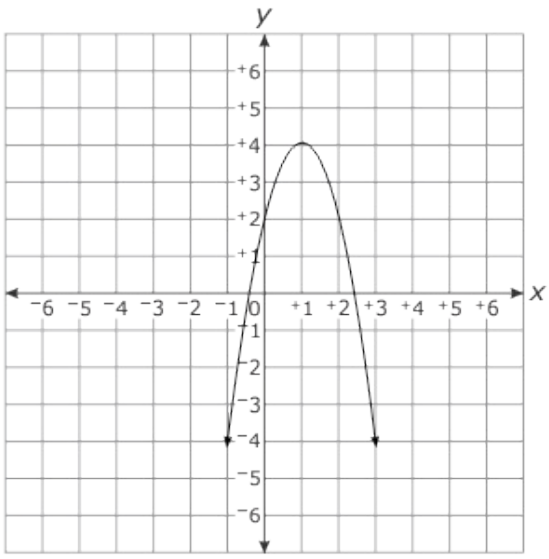
Date: _____

1. Daniel compared the linear function, $f(x)$, containing the points $(10, {}^{-}7)$ and $(5, {}^{-}5)$, to the function given below.

$$g(x) = x^2 + 6x + 8$$

What is the distance between the y-intercepts of the two functions?

2. Aaron compared the maximum value of $y = {}^{-}2x^2 + 6x + 5$ to the maximum value of the function graphed below.



What is the x-value of the larger maximum?

A. 1

B. 1.5

C. 4

D. 9.5

3. Jason kicked a ball into the air. The function $h(t) = 80t - 16t^2$ models the height of the ball, in feet, t seconds after it was kicked. How long does it take the ball to hit the ground?

4. This shows a function.

$$f(x) = 2x^2 - 7x + 3$$

What is the *x*-value of the vertex?

A. $^{-}3.25$

B. 0.5

C. 1.75

D. 3

5. A ball is thrown straight up into the air. The height of the ball *t* seconds after it is thrown is modeled by the equation $h(t) = 48t - 16t^2$. After how many seconds will the ball hit the ground?

A. 1

B. 1.5

C. 3

D. 3.5

6. What is the distance between the x-intercepts to the equation $2x^2 + 8x - 90$?