Quadratics Review Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_

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| --- | --- | --- | --- |
| 1. Find the discriminant:  | 2. Find the vertex:  | 3. Complete the Square: x+ 8x + 8 = 0 | 4. Solve for “x” by square root:  |
| 5 Given an equation in the form $y=a(x-h)^{2}+k$, explain how to find the vertex of the graph | 6. Factor by Bottoms up: = 0 | 7. Solve the system:y = x+4x+3 and y =2x + 6 | 8. Solve for the zeros by Quadratic Formula:  |
| 9. Describe the transformation:f(x) = - 3( x – 2 )- 5 | 10. Given an equation of the form $y=ax^{2}+bx+c$; explain how to get the x-coordinate and y-coordinate of the vertex.  | 11. Find the vertex/Sketch a graph. F(x) = -4(x +1)-8 | 12. State the minimum or maximum point:  |
| 13. Find the solution(s) to the function given below.http://www.studyit.org.nz/img/maths1_graphs_gphprbl_gph1.gif | 14. Put equation in vertex form: y= 3x+12x -18  | 15. Describe the nature of the solutions by using the discriminant. | 16.Put equation in standard form: y = (x + 2)- 5 |

Identify the characteristics

17. y = -( x + 3)+ 5 X Y

Vertex: \_\_\_\_\_\_\_\_\_Max or Min\_\_\_\_\_\_

Axis of symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Zeros: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Interval of Increase\_\_\_\_\_\_\_\_\_\_\_\_\_

18. 

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ X Y

Zeros: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domain: \_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Y – intercept: \_\_\_\_\_\_\_\_

Interval of Decrease

19. A boy throws a football to 20 yards down field so that its height in feet above the ground was given by

 h(t) = - 16t+ 20t + 5.

a. At what time did ball reach its highest point above the ground?



b. What was the maximum height of ball when thrown?

c. What does the *y*-intercept of the graph represent in this context?

d. What does the *x*-intercept represent?