

Secondary Math II

Unit 4 – Quadratics Part 2

PRACTICE TEST

Name

Solve each quadratic equation using any method. (Problems 1 – 9)

LESSON

1. $x^2 - 10x + 24 = 0$

4-1

2. $2x^2 - 3x - 9 = 0$

4-1

3. $6x^2 + 19x = -10$

4-1

4. $4x^2 = 24$

4-2

5. $(x-1)^2 + 5 = 30$

4-2

6. $x^2 + 24 = 0$

4-2

7. $x^2 + 2x - 12 = 0$

4-3

8. $x^2 - x - 11 = 0$

4-3

9. $x^2 + 6x + 13 = 0$ 4-3
10. What are the x -intercepts of the function? $f(x) = 2x^2 + 3x - 14$ 4-4
11. Identify the vertex of the function: $g(x) = x^2 - 8x - 1$ 4-4
12. Write a quadratic function that passes through the points: $(-4, 0)$, $(6, 0)$, $(1, -50)$ 4-4
13. A trio of miscreants use a water balloon launcher to propel a golf ball into the sky, off the side of a bridge, and into the river below. The following model gives the height in feet of the ball above the river t seconds after the ball's launch. $h(t) = -16t^2 + 80t + 96$. What is the ball's maximum height? 4-5
14. Referring to the previous problem, how many seconds after takeoff does it take for the ball to splash into the river? 4-5
15. A certain rectangle has an area of 192 cm^2 . Its height is $(x - 13)$ and its width is $(x + 3)$. Find the value of x . 4-5