Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit Review: Intro to quadratic equations and polynomials

Graphing quadratics:

Make a table and clearly label **at least** 5 points. Locate the vertex of the parabola. Show your work.

(3 pts each)

y = x2 – 3 y = - x2 + 6

 

y = (x – 2)2 + 1 y = - 2x2 – 3

 

Multiply the following polynomials: (2 pts each)

x (x – 5) 2y (y + 1) 3z (z + 1 – a)

2 (-4q + 3s – 5) -2d (3d + 2f – 6) -6g (-3g + 2h – 5)

(m + 7)2 (n – 7)2 (p + 7) (p – 7)

(2d + 4) (d + 3) (3f – 6) (f + 2) (7g – 2) (2g – 3)

Factor the following polynomials: (2 pts each)

4b2 + 6b 11c2 + 33 27d2 + 18d – 36df

220g2 + 40fg – 60g 5s2 – 25s – 40 - 13d2 – 8cd – d

Word Problems: (2 pts each)

A rectangle has two sides that are represented by the expressions (2x + 5) and (x – 1). Write separate expressions for the area and perimeter.

Area: Perimeter:

A rectangle has an area represented by the expression 5x2 + 15. If the length of one side is 20 inches, what is the length of the other side?

A rectangular patio has a width that is three times the length. If the area of the pizza is 192 square feet, what are the dimensions of the patio?