

Exam Review Quiz – Quadratics I

1. Write the letter that corresponds to the best response in the blank next to each question.

B a) Which of these relations is quadratic?

A. $y = x^3 - 4x^2 + 2x - 1$

B. $y = 2x^2 + 1$

C. $y = 3x + 1$

D. $y = 2x^4 + 3x^2 - 4x$

D b) A parabola has a vertex of (6, 4) and a step pattern of 2, 6, 10. The equation of this parabola is:

A. $y = (x + 6)^2 - 4$

B. $y = (x - 6)^2 - 4$

C. $y = 2(x + 6)^2 + 4$

D. $y = 2(x - 6)^2 + 4$

2. Graph the following parabola and state the information requested:

$$y = -\frac{1}{2}(x - 3)^2 + 2$$

a) vertex (3, 2) ✓

b) max/min value max at y=2 ✓

c) direction of opening down ✓

d) axis of symmetry x=3 ✓

e) step pattern -0.5, -1.5, -2.5 ✓

f) roots/zeros x=1, x=5 ✓

g) transformations on the graph of $y = x^2$
 - reflected in x axis ✓
 - compressed by factor 2 ✓
 - shifted right 3 + up 2 ✓

h) Graph:

