

Quadratic Review for Final

Name _____ Date _____ Per _____

Show all your work.

1. Combine like terms:

a. $(8r^4 - 4r^2 - 4r) - (2r^4 + 3r^3 - 6r^2 - 3r)$

b. $5p(6p^2 + 5p + 8)$

2. Write in expanded form.

a. $(x + a)(x + b)$

b. $(a - b)(a - b)$

c. $(k - 6)(k + 6)$

d. A rectangle has length of $4x + 3$ and height $3x - 7$. Find the area of the rectangle.

3. Write in factored form.

a. $v^2 - 2v - 8 = 0$

b. $k^2 + 5k - 6 = 0$

c. $b^2 - 4b - 14 = -2$

d. $3a^2 = 6a - 3$

4. Solve for x . (Do not use the quadratic formula).

a. $(5x + 3)(5x - 3) = 0$

b. $(5x + 4)(2x - 9) = 0$

c. $2x^2 + 9x - 60 = -4$

d. $x^2 - 2x - 2 = 1$

e. $-3x^2 - 15x - 12 = 0$

5. Use the quadratic formula to solve. Round to the thousandths place, if necessary.

a. $2v^2 - 5v + 3 = 0$

b. $2r^2 + 6r = 3$

c. $22t = t^2 + 21$

d. $4 + 7x + 2x^2 = 0$

6. Write the vertex form and state the vertex for each problem.

a. $\frac{1}{2}x^2 - 2x + 4 = -4$

b. Vertex (2, 4) and Point (4, 3).