

Problem Set – Quadratic Skill Check (part 1)

Factor the quadratic using the method of your choice

1) $y = x^2 - 22x + 120$

2) $y = 5x^2 + 3x - 2$

3) $y = 2x^2 + 7x + 1$

4) $y = 9x^2 - 12x + 4$

5) $y = 100x^2 - 1$

6) $y = 6x^2 + 26x + 28$

Identify the vertex. Classify as a maximum or minimum.

7) $y = 2x^2 - 4x + 3$

8) $y = -3(x + 4)^2 - 9$

9) $y = 2x^2 - 2x - 24$

Identify the following characteristics: shape/direction, line of symmetry, and x/y-intercepts

10) $y = 3x^2 - 17x + 6$

11) $y = (x + 1)^2 - 4$

12) $y = -2x^2 - 2x + 40$

Graph the function, then state the domain and range.

13) $y = 2x^2 - 8x + 6$

14) $y = -2(x + 2)^2 + 10$

15) $y = x^2 + 4x - 21$