

# Algebra 1 • Day 71 Notes

## Matching Quadratic Functions with Their Graphs

### Directions

- ✓ Cut along the dotted lines.
- ✓ Organize the various representations into groups representing the same quadratic function (one representation from each pool).

### Pool 1 • Equations in Factored Form

$$y = (x + 3)(x - 3)$$

$$y = 2(x - 1)(x + 5)$$

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

$$y = (3x - 2)(x - 4)$$

$$y = (2x + 3)(2x - 3)$$

$$y = (x + 2)(x - 2)$$

### Pool 2 • Equations in Expanded Form

$$y = 4x^2 + 8x + 4$$

$$y = x^2 - 4$$

$$y = 3x^2 - 14x + 8$$

$$y = 4x^2 - 9$$

$$y = 2x^2 + 8x - 10$$

$$y = x^2 - 9$$

### Pool 3 • x-Intercepts

$$x\text{-int: } \left(\frac{2}{3}, 0\right) \text{ and } (4, 0)$$

$$x\text{-int: } (-2, 0) \text{ and } (2, 0)$$

$$x\text{-int: } \left(-\frac{3}{2}, 0\right) \text{ and } \left(\frac{3}{2}, 0\right)$$

$$x\text{-int: } (-5, 0) \text{ and } (1, 0)$$

$$x\text{-int: } (-1, 0) \text{ (double root)}$$

$$x\text{-int: } (-3, 0) \text{ and } (3, 0)$$

### Pool 4 • y-Intercepts

$$y\text{-int: } (0, -10)$$

$$y\text{-int: } (0, -9)$$

$$y\text{-int: } (0, -4)$$

$$y\text{-int: } (0, -9)$$

$$y\text{-int: } (0, 8)$$

$$y\text{-int: } (0, 4)$$

# Algebra 1 • Day 71 Notes

## Matching Quadratic Functions with Their Graphs

### Pool 5 • Graphs

