

## Mapping Notation Continued

- Applying mapping notation to determine coordinates of a point on a graph of a transformed function.

Example 1: Point  $(-4,16)$  is on the graph of the original parabola. What are the coordinates of this point after reflection in the x-axis, vertical stretch – compression by a factor of 0.25 and horizontal translation left by 7 units?

Example 2: Point  $(0,0)$  is on the graph of the original parabola. What are the coordinates of this point after reflection in the x-axis, vertical stretch – expansion by a factor of 3.5, horizontal translation right by 4 units, and vertical translation down by 2 units?

Example 3: What transformations did the original parabola undergo if its point (3,9) became (1,3) and the transformed graph is congruent with  $f(x) = 2x^2$  ?

Example 4: What transformations did the original parabola undergo if its point (-5,25) became (0,-13) and the transformed graph is congruent with  $y = \frac{1}{3}x^2$  ?