Name:	Date:

Week of October 20 Homework Algebra 2a Due: October 24

1) If $p(x) = x^2 + 5x - 6$, find

a. Where p(x) intersects the y-axis.

b. Where p(x) intersects the x-axis.

c. If $q(x)=x^2+5x$, find the intercepts of q(x) and compare the graphs of p(x) and q(x).

X-intercept:

Y-intercept:

d. Find $p(x)-q(x)$.

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2) Use what you learned in the parabola investigation to write an equation for each of the parabolas described below. *2-25 HW eTool* (Desmos). Homework Help ✎.

a. A parabola opening upward, shifted 8 units right, and 5 units down.

b. A parabola with a stretch factor of 10, sitting with its vertex on the x-axis at $x = -6$.

c. A downward-opening parabola with vertex $(-7,-2)$ and a vertical compression of 0.6.