GSE Algebra 1 **HW #7.5** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Find the vertex and graph the parabola for the following equations.

1. $f\left(x\right)=2x^{2}-12x+17$



Vertex: Axis of Symm:

Direction: Make a table to graph

1. $y=-(x-4)(x+6)$



Vertex: Axis of Symm:

Direction: Make a table to graph

1. $f\left(x\right)=(x-4)^{2}-3$



Vertex: Axis of Symm:

Direction: Make a table to graph

**Multiply** out the following. Make a **box** or **distribute** whichever you prefer.

1. $(4x-1)(x+3)$ 5) $-3(x-3)(2x+11)$ 6) $\frac{1}{2}(4x-8)(x-2)$

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1. Convert the following into **vertex** form: $y=4x^{2}-16x-1$
2. Convert the following into **standard** form, **then** into **vertex** form: $y=\frac{1}{2}(2x-4)(x+1)$

Tell what the **y-intercepts** are for the following.

1. $y=(x-1)(x+4)$ 10) $y=-8x^{2}-3$ 11) $f\left(x\right)=\frac{1}{2}(x-8)^{2}+2$

How has the graph moved/translated?

1. $y=-\frac{1}{3}(x-3)^{2}-4$ 13) $f\left(x\right)=14(x+1)^{2}+45$

Substitute numbers in here

