Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_



For problems 1 – 4, identify the vertex of the given function.

1. $f\left(x\right)=5(x-4)^{2}+5$ 2. $f\left(x\right)=(x+3)^{2}+6$
2. $f\left(x\right)=3(x-8)^{2}-4$ 4. $f\left(x\right)= (x+2)^{2}-5$

For problems 5-6, graph the given function and identify the vertex.

1. $f\left(x\right)=3(x-3)^{2}+5$ 6. $f\left(x\right)= (x+4)^{2}-2$

For problems 7 – 8, graph the given function, identify the vertex

and write the axis of symmetry.

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