Name $\qquad$ Period $\qquad$

## Writing Equations in Vertex and Factored Forms

Use the given information to write a quadratic function in factored form.

1. The parabola opens up and the $x$-intercepts are $(3,0)$ and $(-2,0)$
2. The parabola opens down and the x-intercepts are $(0,0)$ and $(4,0)$
3. The parabola opens down and the $x$-intercepts are $(-10,0)$ and $(-3,0)$
4. The parabola opens up and the $x$-intercepts are $(6,0)$ and $(1,0)$
5. The parabola opens down and the $x$-intercepts are $(-5,0)$ and $(2,0)$

Use the given information to write a possible equation for the quadratic function in vertex form.
6. The vertex is $(-1,3)$ and the parabola opens up.
7. The vertex is $(4,0)$ and the parabola opens down.
8. The vertex is $(2,5)$ and the parabola opens down.
9. The vertex is $(-7,-4)$ and the parabola opens up.
10. The vertex is $(0,-6)$ and the parabola opens up.

