

## Writing Equations of Parabolas

**Write an equation for the given the focus F and vertex V.**

1. Focus:  $(-9,-7)$ ; Vertex:  $(-9,-4)$

2. Focus:  $(2,-1)$ ; Vertex:  $(-4,-1)$

3. Focus:  $(-3,-2)$ ; Vertex:  $(1,-2)$

4. Focus:  $(-3,4)$ ; Vertex:  $(-3,2)$

5. Focus:  $(-2,-4)$ ; Vertex:  $(-2,-5)$

6. Focus:  $(-1,4)$ ; Vertex:  $(7,4)$

7. Focus:  $(14,-8)$ ; Vertex:  $(7,-8)$

8. Focus:  $(8,-3)$ ; Vertex:  $(8,-7)$

**Write an equation for the given the focus F and directrix.**

9. Focus:  $(3,2)$ ; directrix:  $x = -1$

10. Focus:  $(2,4)$ ; directrix:  $x = -4$

11. Focus:  $(-3,4)$ ; directrix:  $y = 2$

12. Focus:  $(7,-1)$ ; directrix:  $y = -9$

## Writing Equations of Parabolas

13. Focus: $(1, -12)$ ; directrix: $y = 12$	14. Focus: $(-4, 3)$ ; directrix: $x = 2$
15. Focus: $(4, -2)$ ; directrix: $y = -8$	16. Focus: $(5, -1)$ ; directrix: $x = 3$