

14.5.D2 ~ Parabolas: Writing Equations

Past due on _____ Period _____

Write the equation of the parabola with the following characteristics.

1) Vertex: $(-8, 5)$, Focus: $(-8, \frac{41}{8})$

2) Vertex: $(-2, 6)$, Directrix: $y = \frac{25}{4}$

3) Focus: $(-1, \frac{33}{4})$, Directrix: $y = \frac{39}{4}$

4) Vertex: $(-1, 10)$, Focus: $(-\frac{11}{12}, 10)$

5) Vertex: $(-1, 9)$, Directrix: $x = -2$

6) Focus: $(-6, 9)$, Directrix: $x = -8$

7) Vertex: $(4, 7)$, Focus: $\left(4, \frac{79}{12}\right)$

8) Vertex: $(9, 3)$, Directrix: $y = \frac{25}{8}$

9) Focus: $\left(8, -\frac{71}{24}\right)$, Directrix: $y = -\frac{73}{24}$

10) Focus: $\left(3, -\frac{5}{4}\right)$, Directrix: $y = -\frac{11}{4}$

11) Opens left or right, Vertex: $(-2, 10)$, Passes through: $\left(-\frac{5}{2}, 13\right)$

12) Opens up or down, Vertex: $(-9, -7)$, Passes through: $(-12, 29)$