Name : _____ Score : _____

Teacher : _____ Date : _____

Writing Equations of Parabolas

Use the info given to write the vertex form of each parabola.

1) Directrix: $y = \frac{47}{-8}$, Focus: $(-5, \frac{49}{-8})$

2) Vertex at origin, Directrix: $y = \frac{-1}{16}$

3) Passes through points: (-4, 18); (-9, 8); (-8, 2) , and Opens Up or Down

4) Vertex at (-7,-1), Focus: $(-7, \frac{17}{-16})$

5) Vertex at (2,-7), Directrix: $y = \frac{-85}{12}$

6) Vertex at origin, Focus: $(0, \frac{1}{-12})$

7) Vertex at (3,-1), Directrix: $y = \frac{7}{-8}$

8) Vertex at (2,-2), Y-Intercept: 14

9) Vertex at origin, Opens Left , and distance between vertex and focus: $\frac{1}{16}$ units

10) Vertex at origin, Focus: $(0, \frac{1}{12})$

Name : _____ Score : _____

Teacher : _____ Date : _____

Writing Equations of Parabolas

Use the info given to write the vertex form of each parabola.

1) Directrix: $y = \frac{47}{-8}$, Focus: $(-5, \frac{49}{-8})$

$y = -2(x + 5)^2 - 6$

2) Vertex at origin, Directrix: $y = \frac{-1}{16}$

$y = 4x^2$

3) Passes through points: (-4, 18); (-9, 8); (-8, 2) , and Opens Up or Down

$y = 2(x + 7)^2$

4) Vertex at (-7,-1), Focus: $(-7, \frac{17}{-16})$

$y = -4(x + 7)^2 - 1$

5) Vertex at (2,-7), Directrix: $y = \frac{-85}{12}$

$y = 3(x - 2)^2 - 7$

6) Vertex at origin, Focus: $(0, \frac{1}{-12})$

$y = -3x^2$

7) Vertex at (3,-1), Directrix: $y = \frac{7}{-8}$

$y = -2(x - 3)^2 - 1$

8) Vertex at (2,-2), Y-Intercept: 14

$y = 4(x - 2)^2 - 2$

9) Vertex at origin, Opens Left , and distance between vertex and focus: $\frac{1}{16}$ units

$x = -4y^2$

10) Vertex at origin, Focus: $(0, \frac{1}{12})$

$y = 3x^2$