

Warm UP 3.5

Name \_\_\_\_\_ Period \_\_\_\_\_

1. Write each expression in three other ways that are equivalent.

a.  $\sqrt[5]{64}$

b.  $\sqrt[3]{x^7}$

2. Which of the following is equivalent to  $2^{x-3}$  ?  
(Select all that apply, there is more than one.)

a.  $\frac{2^x}{8}$

b.  $\frac{2^{x-1}}{4}$

c.  $8^x$

d.  $-3 \cdot 2^x$

3. Fill in the missing values for the table.

x	0	$\frac{1}{3}$	$\frac{2}{3}$	1	$\frac{4}{3}$	$\frac{5}{3}$	2	$\frac{7}{3}$	$\frac{8}{3}$	3
f(x)	3			12			48			

4. Write the equation for the function f(x) in number 3 above.

5. What are the important features of a quadratic function (parabola)? List all.

6. Write the general quadratic function forms below.

Standard Form:

Factored Form:

Vertex Form:

7. Put each of the quadratic functions into vertex form. List all features.

$$g(x) = x^2 + 6x + 5$$

$$h(x) = x^2 - 6x + 7$$

$$s(x) = 2x^2 - 8x + 9$$

$$f(x) = 5x^2 - 40x + 65$$