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Date\_\_\_\_\_ Period\_\_\_\_

Simplify. Your answer should contain only positive exponents.

1) 
$$(4x^3)^2$$

2) 
$$(2m^2)^3$$

Evaluate each using the values given.

3) 
$$\frac{b}{5} + a - (2 - a)$$
; use  $a = 2$ , and  $b = 5$ 

4) 
$$x + y(y + 5 - z)$$
; use  $x = 2$ ,  $y = 5$ , and  $z = 4$ 

Evaluate each expression.

5) 
$$4 - \frac{18}{2 \cdot 4 - 2}$$

6) 
$$\frac{10}{2}$$
 -  $(5-(1+1))$ 

Write each as a fraction.

Write each as a decimal. Round to the thousandths place.

9) 
$$\frac{8}{25}$$

10) 
$$\frac{4}{25}$$

Solve each equation.

11) 
$$v - 19 = -37$$

12) 
$$7 = 15 + n$$

13) 
$$19 = \frac{n}{2}$$

14) 
$$-20 = -2x$$

15) 
$$x + \frac{21}{16} = \frac{37}{16}$$

16) 
$$a + \frac{1}{6} = -\frac{5}{6}$$

Find each quotient.

17) 
$$\frac{-1}{4} \div \frac{-2}{3}$$

18) 
$$3\frac{1}{2} \div \frac{11}{8}$$

Simplify. Your answer should contain only positive exponents.

19) 
$$\frac{4v^4}{6v}$$

20) 
$$\frac{7n^2}{5n^2}$$

$$21) \ \frac{4xy}{4y^2}$$

$$22) \ \frac{6x^3y^4}{8yx^3}$$