

Name \_\_\_\_\_

Write each expression using exponents.

1)  $10 \cdot 10 \cdot 10$

4) 8 squared

2)  $a \cdot a$

5)  $x \cdot x \cdot y \cdot y \cdot y$

3)  $(-3)(-3)$

6)  $4 \cdot 4 \cdot 4 \cdot 4$

Write each power as a product of the same factor, and then give the answer.

Ex:

7)  $3^4 = 3 \cdot 3 \cdot 3 \cdot 3 = 81$

10) 10 cubed

8)  $4^3$

11)  $1^5$

9)  $(-3)^3$

12)  $6^4$

Evaluate if  $a = 2$ ,  $b = -3$

13)  $a^2$

16)  $(ab)^2$

14)  $b^2$

17)  $a^3$

15)  $4a^2$

18)  $b^3$

Over...

Tell if the square root is a perfect square. Then solve all of them. Round to the hundredths if necessary.

Ex:

19)  $\sqrt{81} = \text{yes} = 9$

23)  $\sqrt{19}$

20)  $\sqrt{784}$

24)  $\sqrt{2304}$

21)  $\sqrt{900}$

25)  $\sqrt{169}$

22)  $\sqrt{48}$

26)  $\sqrt{289}$

Estimate the square root. Show the steps.

27)  $\sqrt{43}$

29)  $\sqrt{58}$

28)  $\sqrt{39}$

30)  $\sqrt{115}$

Answer the question.

31) You are designing your own square stamp. The area is  $3.06 \text{ in}^2$ . What is the perimeter of your stamp?