



Name _____

Date _____

Complete the table to represent each number in three different forms. The first one is done for you.

	Standard Form	Multiplication Expression Using Only 10 as a Factor	Exponential Form
1.	100	10×10	10^2
2.	1,000		10^3
3.	10,000		
4.		$10 \times 10 \times 10 \times 10 \times 10$	
5.			10^6

Write each product or quotient in exponential form.

6. $100 \times 100 =$ _____

7. $10,000 \div 10 =$ _____

8. $100 \times 10^4 =$ _____

9. $100,000 \div 10^2 =$ _____

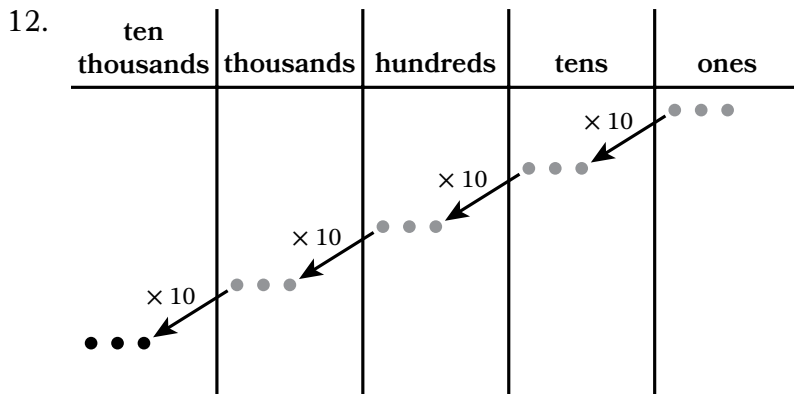
10. Consider the expression shown.

$$1,000 \times 10^3$$

How does the exponent help you think about shifting the digits in the first factor to find the product?

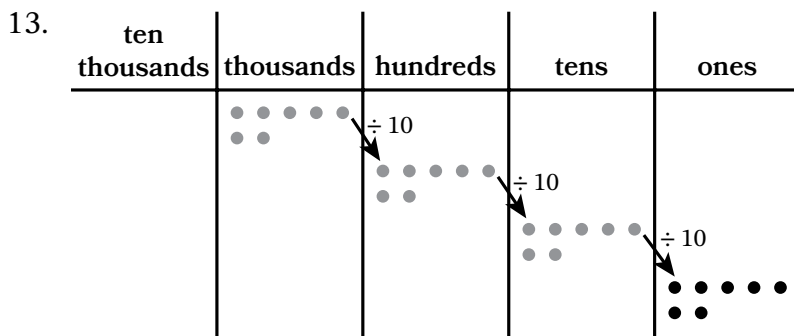
11. Use words and equations to explain how 10^5 is different from 10×5 .

Rewrite each expression by using an exponent. Then find the product or quotient and write it in standard form.



$$3 \times 10 \times 10 \times 10 \times 10 = 3 \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$



$$7,000 \div 10 \div 10 \div 10 = 7,000 \div \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

Find each product or quotient and write it in standard form.

14. $8 \times 10^4 =$ _____

15. $500,000 \div 10^5 =$ _____

16. $39,000 \div 10^2 =$ _____

17. $400 \times 10^3 =$ _____

18. $620 \times 10^4 =$ _____

19. $9,180,000 \div 10^3 =$ _____

20. Explain how you found the quotient in problem 16.

21. Yuna finds 300×10^3 . Explain Yuna's strategy.

Yuna's Way

$$\begin{aligned} 300 \times 10^3 &= 3 \times 10 \times 10 \times 10^3 \\ &= 3 \times 10^5 \\ &= 300,000 \end{aligned}$$