REVIEW: Multiplying and Dividing by Powers of 10

Name _____

Key Concept and Vocabulary

$7 \times 1 = 7$

$7 = 10^1 = 7 \times 10 = 70.$

$7 \times 10^2 = 7 \times 100 = 700.$

Patterns

$7 \div 1 = 7$

$7 \div 10^1 = 7 \div 10 = 0.7$

$7 \div 10^2 = 7 \div 100 = 0.07$

Visual Models

	Hundreds	Tens	Ones	.	Tenths
$7 \times 1 = 7$			7	.	
$7 \times 10^1 = 70$		7	0	.	
$7 \times 10^2 = 700$	7	0	0	.	

	Tens	Ones	.	Tenths	Hundredths
$7 \div 1 = 7$		7	.		
$7 \div 10^1 = 0.7$		0	.	7	
$7 \div 10^2 = 0.07$		0	.	0	7

Skill Examples

1. $600 \times 100 = 60{,}000$

2. $21{,}398 \div 10 = 2{,}139.8$

3. $905 \times 10^3 = 905{,}000$

4. $467 \div 10^2 = 4.67$

5. $3 \times 10^4 = 30{,}000$

6. $82 \div 10^3 = 0.082$

Application Example

7. A store owner orders 100 identical laptops. He pays $49,999 in all. How much money does each laptop cost?

$\$49{,}999 \div 100 = \$499.99$

⋮ Each laptop costs $499.99.

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8. $5 \times 1{,}000 =$ _____

9. $12 \times 10{,}000 =$ _____

10. $389 \times 10^1 =$ _____

11. $44 \times 10^2 =$ _____

12. $30 \div 100 =$ _____

13. $601 \div 10 =$ _____

14. $9{,}564 \div 10^2 =$ _____

15. $225 \div 10^3 =$ _____

16. $8{,}940 \div 10^2 =$ _____

17. $26 \times 10^3 =$ _____

18. $1 \div 10^3 =$ _____

19. $34 \times 10^4 =$ _____

Complete the equation.

20. $9 \times \underline{\quad} = 90{,}000$

21. $561 \div \underline{\quad} = 5.61$

22. $\underline{\quad} \div 10^3 = 1.937$

23. **TOTEM POLE** A totem pole is 240 inches tall. The totem pole is made of 10 wooden animals of the same height. How many inches tall is each animal? _____