

Practice 2-8

Exponents

Write each expression using an exponent. Name the base and the exponent.

1. $3 \times 3 \times 3 \times 3$

2. $7 \times 7 \times 7 \times 7 \times 7 \times 7$

3. $9 \times 9 \times 9$

Write each number in expanded form using powers of 10.

4. 98,364

5. 20,351,401

6. 875,020

Simplify each expression.

7. 9^2

8. 6^4

9. 5^3

10. 7^3

11. $156 + (256 \div 8^2)$

12. $32 + 64 + 2^3$

13. $53 + 64 \div 2^3$

14. $1,280 - 5 \times 6^2$

Find each answer to complete the puzzle.

ACROSS

DOWN

1. $(3 \times 4)^2$

1. $8 \times (5 + 4) \div 6$

3. $60 \div (8 + 7) + 11$

2. $700 \times (2 + 4) \div (17 - 7)$

4. $2^2 \times 5^2 + 106$

3. $11 \times (18 - 3)$

5. $4 + 7 \times 2^3$

5. $60 + (5 \times 4^3) + 2^2 \times 55$

6. $7^2 + 4$

7. $7^2 - 7 \times 2$

9. $48 \div 4 \times 5 - 2 \times 5$

8. $(4^2 - 4) \times 10$

10. $(4 + 3) \times (2 + 1)$

9. $2^4 \times 2^5$

12. $12 \times (30 + 37)$

11. $(3 + 2) \times (6^2 - 7)$

13. $5 \times (9 + 4) + 362 \div 2$

12. $3^4 + 405 \div 81$

14. $29 \times 18 \div 9$

1		2		3	
		4			
	5			6	7
			8		
9			10	11	
		12			
13				14	

Practice 2-8

Exponents

Write each expression using an exponent. Name the base and the exponent.

1. $3 \times 3 \times 3 \times 3$

3^4 ; 3 = base
4 = exponent

2. $7 \times 7 \times 7 \times 7 \times 7 \times 7$

7^6 ; 7 = base
6 = exponent

3. $9 \times 9 \times 9$

9^3 ; 9 = base
3 = exponent

Write each number in expanded form using powers of 10.

4. 98,364

$9 \times 10^4 + 8 \times 10^3 +$
 $3 \times 10^2 + 6 \times 10^1 +$
 4×1

5. 20,351,401

$2 \times 10^7 + 3 \times 10^5 +$
 $5 \times 10^4 + 1 \times 10^3 +$
 $4 \times 10^2 + 1 \times 1$

6. 875,020

$8 \times 10^5 + 7 \times 10^4 +$
 $5 \times 10^3 + 2 \times 10^1$

Simplify each expression.

7. 9^2

$9 \cdot 9 = 81$

8. 6^4

$6 \cdot 6 \cdot 6 \cdot 6 = 1296$

9. 5^3

$5 \cdot 5 \cdot 5 = 125$

10. 7^3

$7 \cdot 7 \cdot 7 = 343$

11. $156 + (256 \div 8^2)$

160

12. $32 + 64 + 2^3$

104

13. $53 + 64 \div 2^3$

61

14. $1,280 - 5 \times 6^2$

1,100

Find each answer to complete the puzzle.

ACROSS

DOWN

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14. $29 \times 18 \div 9$

1	4	2		3	5
2		4	2	0	6
	5	6	0	6	7
	0		8	1	5
9	5	0		10	11
	1		12	8	0
					4
13	2	4	6		14
					5
					8

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