READY TO GO ON?

Quiz for Lessons 7-1 Through 7-5

SECTION 7A

CHAPTER

READY TO

∅ 7-1 Integer Exponents

Evaluate each expression for the given value(s) of the variable(s). Evaluate each t = 2 $\frac{1}{64}$ 2. n^{-3} for n = -5 $-\frac{1}{125}$ 3. $r^0 s^{-2}$ for r = 8 and s = 10

1.
$$t^{-6}$$
 for $t = 2$ $\frac{1}{64}$

2.
$$n^{-3}$$
 for $n = -5$ $-\frac{1}{125}$

3.
$$r^0 s^{-2}$$
 for $r = 8$ and $s = 10_1$

Simplify.

4.
$$5k^{-3}$$
 $\frac{5}{k^3}$

5.
$$\frac{x^4}{y^{-6}}$$
 x^4y^6

6.
$$8f^{-4}g^0$$

7.
$$\frac{a^{-3}}{b^{-2}} \frac{b^2}{a^3}$$

Sim	plify.	E		1								
		$\frac{5}{k^3}$		$\frac{x^4}{y^{-6}}$		6.	8f-4 g	8		7. $\frac{a^{-3}}{b^{-2}}$	<u>b</u> ²	
8.	Measurement Metric units can be written						1.		b ⁻²	a^3		
	in terms of a base unit. The table shows						Selected Metric Prefixes					
	some of these equivalencies. Simplify each expression.						Centi-	Deci-	Deka-	Hecto-		
	CAPIC						10-3	10-2				

	Selec	cted Me	etric Pre	fixes	1.37	
Milli-	Centi-	Deci-	Deka-	Hecto-	Kilo-	
10-3	10-2	10-1	10 ¹	10 ²	10 ³	

10. Write 0.0000001 as a power of 10. **10**⁻⁷

12. Find the value of 82.1×10^4 . **821,000**

7-2 Powers of 10 and Scientific Notation

- 9. Find the value of 104. 10,000
- 11. Write 100,000,000,000 as a power of 10. 10¹¹
- 13. Measurement The lead in a mechanical pencil has a diameter of 0.5 mm. Write this number in scientific notation. 5×10^{-1}

∅ 7-3 Multiplication Properties of Exponents

Simplify.

14.
$$2^2 \cdot 2^5$$
 2

15.
$$3^5 \cdot 3^{-3}$$
 3², or 9 16. $p^4 \cdot p^5$ p^9 17. $a^3 \cdot a^{-6} \cdot a^{-2}$ $\frac{1}{a^5}$

18. **Biology** A swarm of locusts was estimated to contain
$$2.8 \times 10^{10}$$
 individual insects. If each locust weighs about 2.5 grams, how much did this entire swarm weigh? Write your answer in scientific notation. 7×10^{10} g

Simplify.

19.
$$(3x^4)^3$$
 27 x^{11}

20.
$$(m^3n^2)^5$$
 $m^{15}n^{10}$

21.
$$(-4d^7)^2$$
 16 d^{14}

Simplify.

19.
$$(3x^4)^3$$
 27 x^{12}

20. $(m^3n^2)^5$ $m^{15}n^{10}$ 21. $(-4d^7)^2$ 16 d^{14} 22. $(cd^6)^3 \cdot (c^5d^2)^2$ $c^{13}d^{22}$



7-4 Division Properties of Exponents

Simplify.

23.
$$\frac{6^9}{6^7}$$
 36

24.
$$\frac{12a^5}{3a^2}$$
 4a

25.
$$\left(\frac{3}{5}\right)^3 \frac{27}{125}$$

Simplify each quotient and write the answer in scientific notation.

27.
$$(8 \times 10^9) \div (2 \times 10^6)$$

Simplify each quotient and write the answer
$$= 27$$
. $(8 \times 10^9) \div (2 \times 10^6)$ $= 28$. $(3.5 \times 10^5) \div (7 \times 10^8)$ $= 5 \times 10^{-4}$

29.
$$(1 \times 10^4) \div (4 \times 10^4)$$

2.5 × **10**⁻¹



7-5 Fractional Exponents

Simplify each expression. All variables represent nonnegative numbers. 32. $4^{\frac{3}{2}}$ 8
33. $0^{\frac{2}{9}}$ 0
36. $\sqrt[6]{z^{12}}$ z^2 37. $\sqrt[3]{p^3q^{12}}$ pq^4

30.
$$81^{\frac{1}{2}}$$
 9

32.
$$4^{\frac{3}{2}}$$
 8

34.
$$\sqrt{x^8y^4}$$
 x^4y^2 35. $\sqrt[3]{r^9}$ r^3

35
$$\sqrt[3]{r^9}$$
 r^3

36.
$$\sqrt[6]{z^{12}}$$
 z^2

37.
$$\sqrt[3]{p^3q^{12}} pq^4$$

Organizer

Objective: Assess students' mastery of concepts and skills Lessons 7-1 through 7-5.



Countdown to Mastery Week 1

Resources

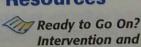


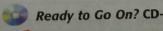
Assessment Resources Section 7A Quiz



INTERVENTION

Resources







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Enrichment Workshe

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Answer

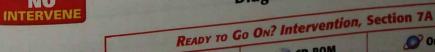
8.
$$10^{-3} = \frac{1}{1000}$$
, or 0.001;
 $10^{-2} = \frac{1}{100}$, or 0.01;

$$10^{-1} = \frac{1}{10}$$
, or 0.1;

$$10^1 = 10; 10^2 = 100;$$

$$10^3 = 1000$$

READY TO GO ON? Diagnose and Prescribe



7-1 Inter

7-2 Inter

	Ready to Go On?
-	Ready to Go On? Intervention
	Lesson 7-1 2.0

V Lesson 7-2 **2.0**

CD-ROM Wo Wo

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	Activity 7-		
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Diagnose and Prescribe

Online



READY TO GO ON? **Enrichment, Section 7A**



