Name	Onto Date	Date _	emely .
	pages 495–501		Practice Market For Inconstruction
Name the property	demonstrated by the	example.	linear an Allami
$1. \frac{x^5}{x^3} = x^{5-3} = x^2$	2. $\left(\frac{a}{b}\right)^4 =$	$\frac{a^4}{b^4}$ 3. $\frac{2m^8}{m^6}$	$=2m^{8-6}=m^2$
Fill in the blanks.			A. 120 120 -
4. $\frac{3^8}{3^5} = 3^8 \square 5$	5. $\left(\frac{3}{4}\right)^4 =$	$\frac{3}{4}$ 6. $\frac{8^6}{8^4 \cdot 1}$	$\frac{1}{8^2} = \frac{8}{8}$
= 3			
Simplify the expres	sion. Write your answ	wer using exponents.	
7. $\frac{4^7}{4^3}$	8. $\frac{9^{10}}{9^7}$	9. $\frac{3^6}{3^1}$	
10. $\frac{(-5)^4}{(-5)^3}$	11. $\frac{(-7)^5}{(-7)^1}$	12. $\left(\frac{1}{4}\right)^5$	
13. $\left(\frac{5}{3}\right)^7$	14. $\left(\frac{2}{7}\right)^9$	15. 4 ⁵ •	At to assess the assessment
Simplify the expres	sion.	ds in the Clamblean Sec. 12 104. 5 how many times greater News	
16. $\frac{1}{y^5} \cdot y^{11}$		17. $z^3 \cdot \frac{1}{z^2}$	Eurs and Nevis' erra
18. $\frac{1}{m^4} \cdot m^8$	o to tocatini otean xondit.	19. $\left(\frac{x}{y}\right)^3$	0. Cell Phone Subscribers of
20. $\left(\frac{a}{b}\right)^{13}$ is nonnoice	Republic. Puland	21. $\left(\frac{1}{z}\right)^9$	
0		in the second se	palite for to sea h 4

22. Internet Users The table shows the numbers of Internet users in selected countries in 2001.

Country	Albania	Jamaica	Marshall Islands	Romania
Internet Users	104	105	10 ³	106

- a. How many times greater is the number of users from Romania than the number of users from the Marshall Islands?
- **b.** How many times greater is the number of users from Albania than the number of users from the Marshall Islands?
- c. How many times greater is the number of users from Jamaica than the number of users from the Marshall Islands?
- d. How many times greater is the number of users from Romania than the number of users from Albania?

ESSON 8.2

LESS 8.

and the second s	
ON	Practice B
2	For use with pages 495-50

Simplify the expression. Write your answer using exponents.

1. $\frac{6^{14}}{6^8}$	2.	14 ⁵ 14 ⁴	3.	$\frac{(-5)^7}{(-5)^2}$
4. $\frac{12^5 \cdot 12^3}{12^4}$	5.			$\left(\frac{3}{4}\right)^5$
7. $\left(-\frac{1}{5}\right)^{6}$	8.	$3^8 \cdot \frac{1}{3^1}$	9.	$\left(\frac{1}{4}\right)^5 \cdot 4^{13}$

Date

Simplify the expression.

10.	$\frac{1}{y^9} \cdot y^{15}$	1.	$z^{16} \cdot \frac{1}{z^7}$	12.	$\left(\frac{a}{b}\right)^8$
13.	$\left(-\frac{6}{z}\right)^3$	4.	$\left(\frac{a^3}{2b^5}\right)^4$	15.	$\left(\frac{3x^4}{y^6}\right)^5$
16.	$\left(\frac{m^4}{5n^9}\right)^3$	7.	$\left(\frac{3x^7}{2y^{12}}\right)^4$	18.	$\left(\frac{2m^5}{3n^9}\right)^5$

- 19. Area The area of New Zealand is 104,454 square miles and the area of Saint Kitts and Nevis, islands in the Caribbean Sea, is 104 square miles. Use order of magnitude to estimate how many times greater New Zealand's area is than Saint Kitts and Nevis' area.
- 20. Cell Phone Subscribers The table below shows the approximate number of cell phone subscribers in selected countries in 2001.

Country	Algeria	Dominican Republic	Poland	Solomon Islands	
Number of subscribers	10 ⁵	10 ⁶	107	10 ³	

- a. How many times greater is the number of cell phone subscribers in Poland than in the Solomon Islands?
- b. How many times greater is the number of cell phone subscribers in the Dominican Republic than in the Solomon Islands?
- 21. Glass Vase You are taking a glass-blowing class and have created a vase in the

shape of a sphere. The vase will have a hole in the top so you can put flowers in it

and it will sit on a stand. The radius of your vase is $\frac{21}{2}$ inches. Use the formula

 $V = \frac{4}{3}\pi r^3$ to write an expression for the volume of your vase.

LESSON 8.2

q. How many times greater is the sumber of users from Romanis that the northor