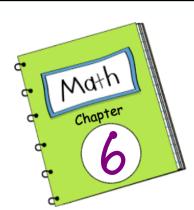


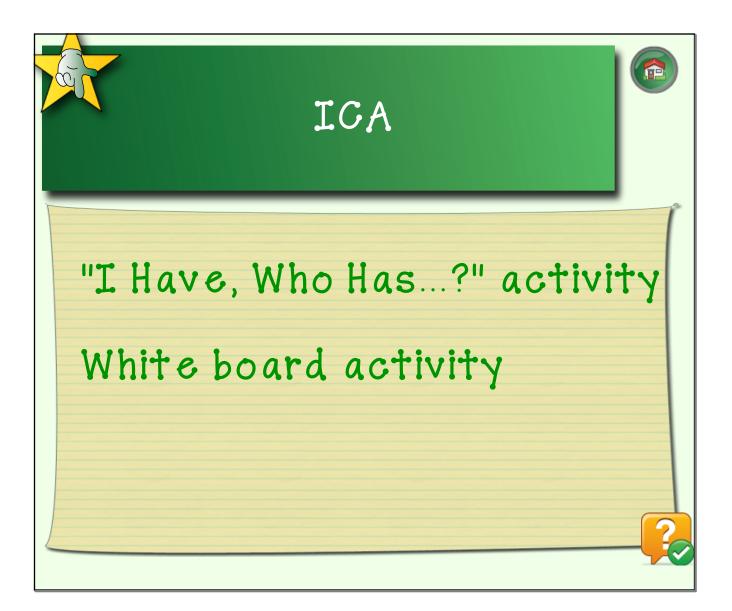
1. 6 × 6 =	<b>2.</b> 1 × 1 × 1 =	<b>3.</b> $5 \times 5 \times 5 \times 5 \times 5 \times 5 =$
6 <sup>2</sup>	<u>1<sup>3</sup></u>	56
*		
1. 12 × 12 =	<b>15</b> 27 × 27 × 27 × 27 =	<b>6.</b> 15 × 15 × 15 =
12 <sup>2</sup>	274	15 <sup>3</sup>
/rite each power as a product o	of the same factor. Then find the	
alue. (Examples 3–5) 7 6 <sup>4</sup> =	8. $0.5^3 =$	$(1)^2$
6 × 6 × 6 × 6; 1,296	0.5 × 0.5 × 0.5; 0.125	$\frac{1}{8}\left(\frac{1}{8}\right)^2 = \frac{1}{8} \times \frac{1}{8} = \frac{1}{64}$
	0.5	0 0 04
36×36	<u>x0.5</u>	
	<u></u>	,
0. 🐵 Identify Repeated Reas		1 1 Nor
unit of measurement for inform computers. (Example 6)		Kilobyte = 10 <sup>3</sup> bytes
<ul> <li>a. A kilobyte is equal to 10<sup>3</sup> b</li> </ul>		Kilobyte = 10° bytes Megabyte = 10° bytes Gigabyte = 10° bytes
product of the same factor $10 \times 10 \times 10; 1,000$	: Then find the value.	Gigaryte - 10. Dytes
		Running Them
b. A megabyte is equal to 10		
product of the same factor $10 \times 10 \times 10 \times 10 \times 10 >$		<b>^</b>
10 11 10 10 10 10 10 10 10 10 10 10 10 1		1,000,000,000
c. How many more bytes of i	nformation are in a	1,000,000
gigabyte than a megabyte	? 999,000,000 bytes	9.000
0.5 <sup>4</sup> + 1 = 1.0625	$\begin{array}{c} 12.(3.3)^3 \times 10 = \\ 3.2 \\ 3.2 \\ 0.24 \\ 0.24 \end{array}$	13. 10.3 <sup>3</sup> + 8 = 1,100.727
2.0.5	* 3.2 ( 3.2	איייו ארייין 💦
125	69	
1627	9 6 6 1 32. 168	
H.O.T. Problems	4 6 6 32 168 10.2 4 327.6 Higher Order Thinking	8 48
	ics Write a power whose value is	greater than
14. 🌚 Model with Mathemati	ics Write a power whose value is	greater than
<ol> <li>Model with Mathemati 1,000. Sample answer: 50<sup>2</sup></li> <li>Write each product using an ex</li> </ol>	ice Write a power whose value is	
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{2^3}{2}$	ics         Write a power whose value is           ponent.         19. 10 × 10 × 10 =	<b>20.</b> 32 × 32 × 32 × 32 =
14. The Model with Mathemati 1000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{c^3}{2}$ The factor <i>G</i> is used 3 times.	ice Write a power whose value is	
14. <b>(b)</b> Model with Mathemati 1000. Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{4^3}{2}$	ics         Write a power whose value is           ponent.         19. 10 × 10 × 10 =	<b>20.</b> 32 × 32 × 32 × 32 =
14. The back is $\xi$ .	ics         Write a power whose value is           ponent.         19. 10 × 10 × 10 =	<b>20.</b> 32 × 32 × 32 × 32 =
14. The Model with Mathemati 1000, Sample answer: 50 <sup>2</sup> Write each product using an ext 18. $6 \times 6 \times 6 = \frac{6^3}{3}$ The factor 6 is used 3 times: The base is 6. The exponent is 5.	is the power whose value is ponent. 10. $10 \times 10 \times 10 = \frac{10^3}{10^3}$	<b>20.</b> 32 × 32 × 32 × 32 = 32 <sup>4</sup>
14. The decise is 4. The exponent is 5. The exponent is 5. The exponent is 5. The exponent is 5. 21. $9 \times 9 =$	<ul> <li>ice Write a power whose value is</li> <li>ponent.</li> <li>10. 10 × 10 × 10 =</li> <li>10<sup>3</sup></li> <li>22. 7 × 7 × 7 × 7 × 7 × 7 =</li> </ul>	<b>20.</b> 32 × 32 × 32 × 32 = <b>32<sup>4</sup></b> <b>23.</b> 13 × 13 × 13 × 13 × 13 =
14. The Model with Mathemati 1000, Sample answer: 50 <sup>2</sup> Write each product using an ext 18. $6 \times 6 \times 6 = \frac{6^3}{3}$ The factor 6 is used 3 times: The base is 6. The exponent is 5.	is the power whose value is ponent. 10. $10 \times 10 \times 10 = \frac{10^3}{10^3}$	<b>20.</b> 32 × 32 × 32 × 32 = 32 <sup>4</sup>
14. The decise is 4. The exponent is 5. The exponent is 5. The exponent is 5. The exponent is 5. 21. $9 \times 9 =$	<ul> <li>ice Write a power whose value is</li> <li>ponent.</li> <li>10. 10 × 10 × 10 =</li> <li>10<sup>3</sup></li> <li>22. 7 × 7 × 7 × 7 × 7 × 7 =</li> </ul>	<b>20.</b> 32 × 32 × 32 × 32 = <b>32<sup>4</sup></b> <b>23.</b> 13 × 13 × 13 × 13 × 13 =
14. The decise is 4. The exponent is 5. The exponent is 5. The exponent is 5. The exponent is 5. 21. $9 \times 9 =$	<ul> <li>ice Write a power whose value is</li> <li>ponent.</li> <li>10. 10 × 10 × 10 =</li> <li>10<sup>3</sup></li> <li>22. 7 × 7 × 7 × 7 × 7 × 7 =</li> </ul>	<b>20.</b> 32 × 32 × 32 × 32 = <b>32<sup>4</sup></b> <b>23.</b> 13 × 13 × 13 × 13 × 13 =
14. The back is the set of the s	<ul> <li>ice Write a power whose value is</li> <li>iponent.</li> <li>10. 10 × 10 = 10<sup>3</sup></li> <li>22. 7 × 7 × 7 × 7 × 7 × 7 × 7 = 7<sup>6</sup></li> </ul>	<b>20.</b> 32 × 32 × 32 × 32 = <b>32<sup>4</sup></b> <b>23.</b> 13 × 13 × 13 × 13 × 13 = <b>13<sup>5</sup></b>
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{c^3}{100}$ The factor 4 is used 3 times. The basis if 4. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{100}$ Write each power as a product	ice Write a power whose value is ponent. 19. $10 \times 10 \times 10 = \frac{10^3}{7^6}$ 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 = \frac{7^6}{7^6}$ of the same factor. Then find the	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{6^3}{3}$ The factor 4 is used 3 times. The backs is 4. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{3}$ Write each power as a product 23. $3^2 = \frac{3}{3} \times 3 \times 3 \times 3 \times 3 \times 3$	ponent. 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 = \frac{7^6}{25.006^2}$	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{c^3}{100}$ The factor 4 is used 3 times. The basis if 4. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{100}$ Write each power as a product	ice Write a power whose value is ponent. 19. $10 \times 10 \times 10 = \frac{10^3}{7^6}$ 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 = \frac{7^6}{7^6}$ of the same factor. Then find the	<b>20.</b> 32 × 32 × 32 × 32 = 32 <sup>4</sup> <b>23.</b> 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup>
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{6^3}{3}$ The factor 4 is used 3 times. The backs is 4. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{3}$ Write each power as a product 23. $3^2 = \frac{3}{3} \times 3 \times 3 \times 3 \times 3 \times 3$	ponent. 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 = \frac{7^6}{25.006^2}$	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{6^3}{3}$ The factor 4 is used 3 times. The backs is 4. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{3}$ Write each power as a product 23. $3^2 = \frac{3}{3} \times 3 \times 3 \times 3 \times 3 \times 3$	ponent. 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 = \frac{7^6}{25.006^2}$	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{6^3}{10^3}$ The factor 6 is used. 3 times. The back is 6. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{2}$ Write each power as a product 24. $3^7 = \frac{3}{3} \times 3 \times 3 \times 3 \times 3 \times 3$	ponent. 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 = \frac{7^6}{25.006^2}$	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. The Model with Mathemati 1,000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{6^3}{10^3}$ The factor 6 is used. 3 times. The back is 6. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{2}$ Write each power as a product 24. $3^7 = \frac{3}{3} \times 3 \times 3 \times 3 \times 3 \times 3$	ice Write a power whose value is ponent. 19. 10 × 10 × 10 = 10 <sup>3</sup> 22. 7 × 7 × 7 × 7 × 7 × 7 = 7 <sup>6</sup> of the same factor. Then find the 25. 0.06 <sup>2</sup> = 0.06 × 0.06; 0.0036	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. Omega       Model with Mathemati         1,000. Sample answer: 50 <sup>2</sup> Write each product using an ext         18. $6 \times 6 \times 6 = 6^3$ The factor 4 is used.         3 times.         The base is 4.         The base is 4.         The base is 4.         21. $9 \times 9 = 9^2$ 92         Write each power as a product         24. $3^7 = 3 \times 3$	is Write a power whose value is ponent. 19. 10 × 10 × 10 = 10 <sup>3</sup> 22. 7 × 7 × 7 × 7 × 7 × 7 = 76 of the same factor. Then find the 25. 0.06 <sup>2</sup> = 0.06 × 0.06; 0.0036 all infield at the right has an at is the area of the infield?	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. C Model with Mathemati 1000, Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{6^3}{1000}$ The factor 4 is used 3 times. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{2000}$ Write each power as a product 24. $3^7 = \frac{3}{3} \times 3 \times$	is the apower whose value is ponent. 19. $10 \times 10 \times 10 = \frac{10^3}{2}$ 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 = \frac{7^6}{2}$ of the same factor. Then find the 25. $0.06^2 = \frac{0.06 \times 0.0036}{0.0036}$ will infield at the right has an	20. 32 × 32 × 32 × 32 = 32 <sup>4</sup> 23. 13 × 13 × 13 × 13 × 13 = 13 <sup>5</sup> : value.
14. O Model with Mathemati 1000. Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = 6^3$ The factor 6 is used 3 times. The base is 6. The base is 6. 21. $9 \times 9 = 9^2$ Write each power as a product 24. $3^7 = 3 \times 3$	is the same factor. Then find the same factor. The	20. $32 \times 32 \times 32 \times 32 = \frac{32^4}{2}$ 23. $13 \times 13 \times 13 \times 13 \times 13 = \frac{13^5}{4}$ 24. $\frac{13 \times 13 \times 13 \times 13 \times 13}{4} = \frac{1}{64}$
14. C Model with Mathemati 1000. Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = \frac{6^3}{100}$ The factor 6 is used. 3 times. The base is 6. The exponent is 3. 21. $9 \times 9 = \frac{9^2}{9^2}$ Write each power as a product 24. $3^7 = \frac{3}{3} \times 3 \times$	ice Write a power whose value is ponent. 19. $10 \times 10 \times 10 =$ $10^3$ 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 =$ 7 of the same factor. Then find the 25. $0.06^2 =$ $0.06 \times 0.06; 0.0036$ all infield at the right has an at is the area of the infield? 9 D × 9 D aked 5 <sup>5</sup> muffins. How many muffi	20. $32 \times 32 \times 32 \times 32 = \frac{32^4}{12}$ 23. $13 \times 13 \times 13 \times 13 \times 13 = \frac{13^5}{13^5}$ 2 value. 26. $(\frac{1}{4})_1^3 = \frac{1}{4} \times \frac{1}{4} = \frac{1}{64}$
14. O Model with Mathemati 1000. Sample answer: 50 <sup>2</sup> Write each product using an ex 18. $6 \times 6 \times 6 = 6^3$ The factor 6 is used 3 times. The base is 6. The base is 6. 21. $9 \times 9 = 9^2$ Write each power as a product 24. $3^7 = 3 \times 3$	is the same factor. Then find the same factor. The	20. $32 \times 32 \times 32 \times 32 = \frac{32^4}{12}$ 23. $13 \times 13 \times 13 \times 13 \times 13 = \frac{13^5}{13^5}$ 2 value. 26. $(\frac{1}{4})_1^3 = \frac{1}{4} \times \frac{1}{4} = \frac{1}{64}$
14. Content of the set of the se	is the approximation of the same factor. Then find the same factor. Then find the 25. $0.06^2 = 0.06 \times 0.06$ ; $0.0036$ all infield at the right has an at is the area of the infield? $9 0 \times 9 0$ aked 5 <sup>5</sup> muffins. How many muffing the same factor. The same factor. The field the right has an at is the area of the infield?	20. $32 \times 32 \times 32 \times 32 = \frac{32^4}{2}$ 23. $13 \times 13 \times 13 \times 13 \times 13 = \frac{13^5}{13^5}$ 2 value. 26. $(\frac{1}{4})^3 = \frac{1}{4} \times \frac{1}{4} = \frac{1}{64}$
<ul> <li>14. Model with Mathemati 1,000, Sample answer: 50<sup>2</sup></li> <li>1000, Sample answer: 50<sup>2</sup></li> <li>Write each product using an extra structure of the base is 4. The base is 4. The base is 5.</li> <li>21. 9 × 9 = 9<sup>2</sup></li> <li>9<sup>2</sup></li> <li>Write each power as a product 24. 3<sup>7</sup> = 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3 × 3</li></ul>	ice Write a power whose value is ponent. 19. $10 \times 10 \times 10 =$ $10^3$ 22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 =$ 7 of the same factor. Then find the 25. $0.06^2 =$ $0.06 \times 0.06; 0.0036$ all infield at the right has an at is the area of the infield? 9 D × 9 D aked 5 <sup>5</sup> muffins. How many muffi	20. $32 \times 32 \times 32 \times 32 = \frac{32^4}{2}$ 23. $13 \times 13 \times 13 \times 13 \times 13 = \frac{13^5}{13^5}$ 2 value. 26. $(\frac{1}{4})^3 = \frac{1}{4} \times \frac{1}{4} = \frac{1}{64}$

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2/17	I	Powers and Exponents Video Notes
2/19	1	HOMEWORK: Pg437WS



White Board Activity Questions:
Write each product using an exponent. 1.5×5×5
1.5×5×5
2. 10 × 10
3. $6 \times 6 \times 6 \times 6$
$4,8\times8\times8\times8\times8$
5. $29 \times 29 \times 29 \times 29$
6. 3 × 3 × 3 × 3 × 3 × 3 × 3
7.15×15×15×15
2.12 - 12 - 12
8. 7 × 7 × 7 × 7 × 7 × 7
$9.0.2 \times 0.2 \times 0.2$
<ol> <li>BUILDINGS The Willis Tower in Chicago is one of the tallest buildings in the world. It stands about 38 × 38 feet tall. Write this product using an exponent.</li> </ol>
tall. Write this product using an exponent.
11. WETLANDS There are about $10 \times 10 \times 10 \times 10 \times 10$ $\times 10 \times 10 \times 10$ acres of wetlands left in the lower 48 states. Write this product using an exponent.
Write each power as a product of the same factor. Then find the value. 12. 3 <sup>5</sup>
13. 12 <sup>2</sup>
1.00 (Z
14. 6 <sup>1</sup>
15. 41
16. 10 <sup>4</sup>
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