6th Grade
Feb 19, 2021

6P Only (2-hour delay)

Today we will:

-review HW

-"I Have, Who Has" Activity and white board practice

-Test Monday: Barrett, Zac

-Binder check: Barrett, Zac

HOMEWORK:

ALEKS assignment: 60 min and 5 topics due next Monday by 11:59pm

February 19, 2021

Write each product using an exponent. (Examples 1 and 2)

1. $6 \times 6 =$ 6^2
2. $1 \times 1 \times 1 =$ 1^3
3. $5 \times 5 \times 5 \times 5 \times 5 \times 5 =$ 5^6
4. $12 \times 12 =$ 12^2
5. $27 \times 27 \times 27 \times 27 =$ 27^4
6. $15 \times 15 \times 15 =$ 15^3

Write each power as a product of the same factor. Then find the value. (Examples 3–5)

7. $6^4 =$ $6 \times 6 \times 6 \times 6$; 1,296
8. $0.5^3 =$ $0.5 \times 0.5 \times 0.5$; 0.125
9. $\left(\frac{1}{8}\right)^2 =$ $\frac{1}{8} \times \frac{1}{8} = \frac{1}{64}$

10. **MP Identify Repeated Reasoning** A byte is a basic unit of measurement for information storage involving computers. (Example 6)

a. A kilobyte is equal to 10^3 bytes. Write 10^3 as a product of the same factor. Then find the value.
$10 \times 10 \times 10$; 1,000

b. A megabyte is equal to 10^6 bytes. Write 10^6 as a product of the same factor. Then find the value.
$10 \times 10 \times 10 \times 10 \times 10 \times 10$; 1,000,000

c. How many more bytes of information are in a gigabyte than a megabyte? 999,000,000 bytes

Find the value of each expression.

11. $0.5^4 + 1 =$ 1.0625
12. $3.2^3 \times 10 =$ 327.68
13. $10.3^3 + 8 =$ 1,100.727

H.O.T. Problems Higher Order Thinking

14. **MP Model with Mathematics** Write a power whose value is greater than 1,000. Sample answer: 50^2

Write each product using an exponent.

18. $6 \times 6 \times 6 =$ 6^3
19. $10 \times 10 \times 10 =$ 10^3
20. $32 \times 32 \times 32 \times 32 =$ 32^4
21. $9 \times 9 =$ 9^2
22. $7 \times 7 \times 7 \times 7 \times 7 \times 7 =$ 7^6
23. $13 \times 13 \times 13 \times 13 \times 13 =$ 13^5

Write each power as a product of the same factor. Then find the value.

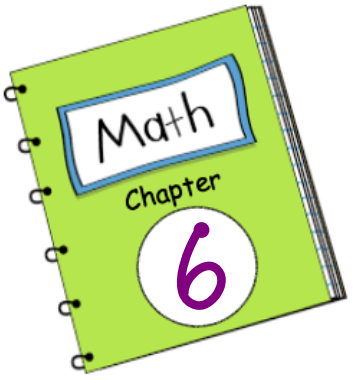
24. $3^7 =$ $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$; 2,187
25. $0.06^2 =$ 0.06×0.06; 0.0036
26. $\left(\frac{1}{4}\right)^3 =$ $\frac{1}{4} \times \frac{1}{4} \times \frac{1}{4} = \frac{1}{64}$

27. **MP Be Precise** The baseball infield at the right has an area of 90^2 square feet. What is the area of the infield?
8,100 square feet

28. Last week Bakery Marvels baked 5^5 muffins. How many muffins did Bakery Marvels bake?
3,125 muffins

29. Luke ran 3.5^3 miles in the month of January. How many miles did Luke run in January? 42.875 miles

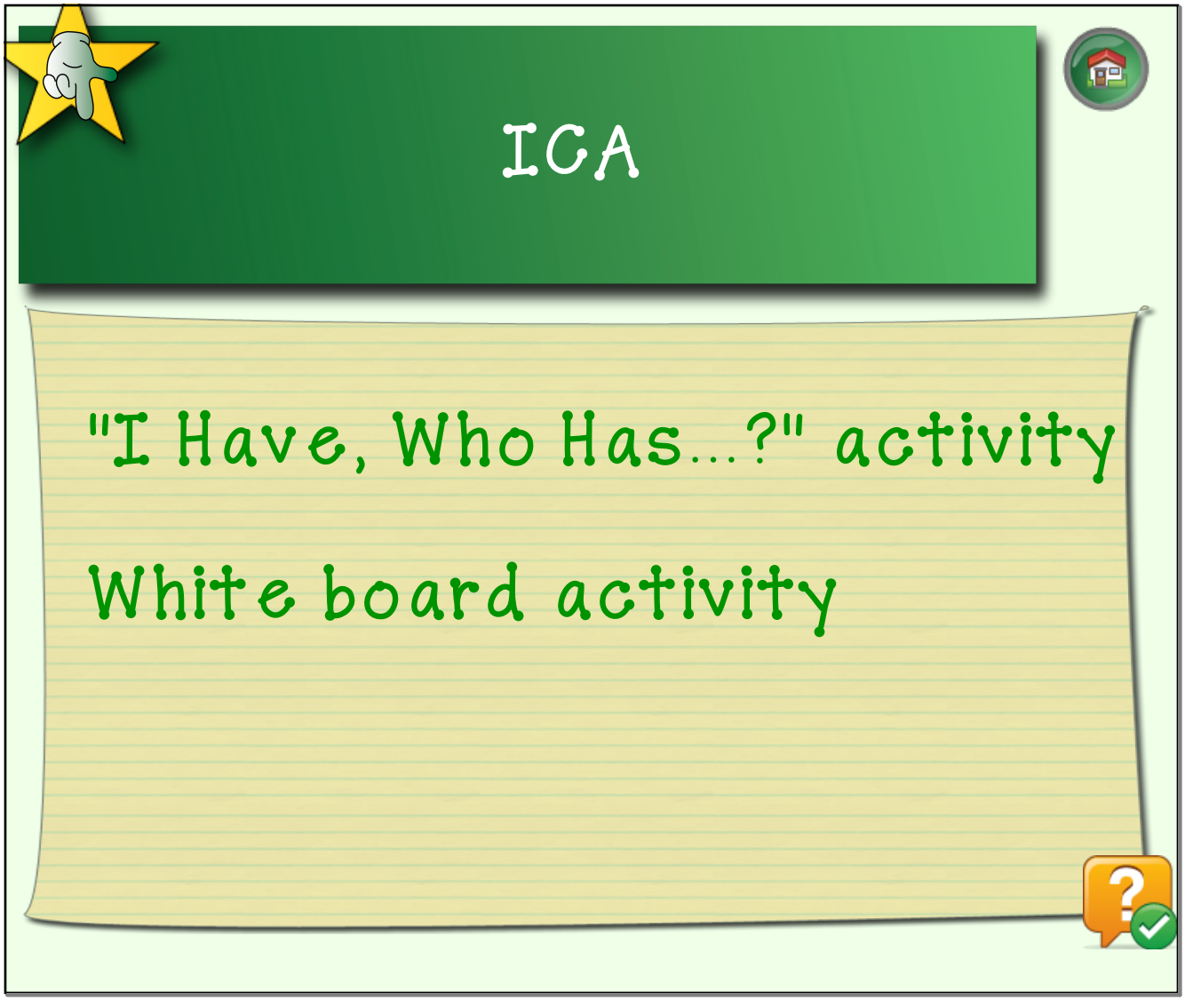
February 19, 2021



TITLE: Expressions

Date	Lesson	Topic/Assignment
2/17	1	Powers and Exponents Video Notes
2/19	1	HOMEWORK: Pg437 WS

February 19, 2021



February 19, 2021

White Board Activity Questions:

Write each product using an exponent.

1. $5 \times 5 \times 5$

2. 10×10

3. $6 \times 6 \times 6 \times 6$

4. $8 \times 8 \times 8 \times 8 \times 8$

5. $29 \times 29 \times 29 \times 29$

6. $3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$

7. $15 \times 15 \times 15 \times 15$

8. $7 \times 7 \times 7 \times 7 \times 7 \times 7$

9. $0.2 \times 0.2 \times 0.2$

10. 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.

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. 3^3

13. 12^2

14. 6^1

15. 4^4

16. 10^4

February 19, 2021