Topic: Prime Factorization

EQ: How do you write the prime factorization of a number?

I can write the prime factorization of a number. **I can** distinguish between a prime and composite number.
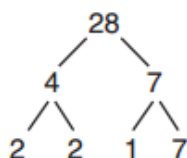
CCSS: 6.NS.1

Homework W7_Day 1

Use exponents to write the prime factorization of 28.

Step 1 Write 28 as the product of 2 factors.

Step 2 Write the factors of each composite factor.

Step 3 Use exponents to write the prime factorization.

Solution: $28 = 2^2 \times 7$

28
/ \
4   7

28
/ \
4   7
/ \ / \
2 2 1 7

Write the prime factorization of each number. Use exponents if possible. If the number is prime, write _prime_.

1. 32   **2.** 31   **3.** 49

4. 39   **5.** 40   **6.** 81

Write each expression using exponents.

7. $6 \times 6 \times 6$ **8.** $5 \times 5 \times 5 \times 5$ **9.** $9 \times 9 \times 9$

_____   _____   _____

Kari and Julie are practicing for basketball tryouts. Kari makes 3 less than twice as many baskets as Julie.

Part A

Write an expression with two terms for the number of baskets that Kari makes. Explain how you found your expression.

_____

_____

_____

Part B

Write an expression with three terms for the number of baskets that Kari and Julie make in all. Explain how you found your expression.

_____

_____

_____

Part C

If Julie makes 18 baskets, how many baskets does Kari make? How many baskets do they make in all?

Show your work.

Kari makes _____ baskets.

Kari and Julie make _____ baskets in all.

List the Prime Factorization for Each Number.

1)   66   _____

2)   51   _____

3)   49   _____

4) 116   _____

5)   58   _____

6)   88   _____

7)   32   _____

8)   95   _____

9)   12   _____

10)   46   _____

11)   98   _____

***If you need to create factor trees to better answer each question, use the back of this page to show your work!!!