

HOMEWORK

Prime Factorization · Week of _____

Name: _____

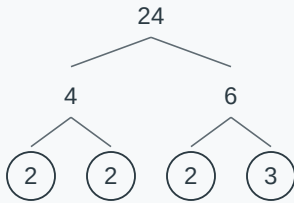
Due: Friday

Complete one half-page each night. No calculators. Circle the primes at the end of every branch.

MONDAY

I do · Study the example, then try

EXAMPLE: FACTOR TREE FOR 24



1. Split the number into any factor pair: $24 = 4 \times 6$
2. Keep splitting any composite number.
3. Stop when every branch ends in a prime. Circle it.
4. Multiply the circled primes to check.
 $24 = 2 \times 2 \times 2 \times 3$

1. Tiles show the difference: a prime makes one rectangle; a composite makes more than one.



5: 1×5 only (prime)



6: 1×6



6: 2×3 (composite)

2. Write prime or composite.

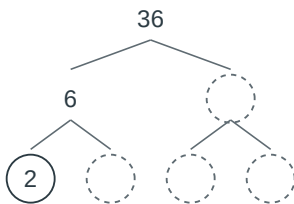
a) 7 _____ b) 9 _____ c) 15 _____ d) 2 _____

TUESDAY

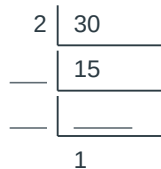
We do · Finish what's started

1. Finish the factor tree for 36 and the division ladder for 30. Circle the primes.

Ladder: divide by a prime each step until you reach 1. Try 2, then 3, then 5.



36 = _____



30 = _____

2. Which prime factors do 36 and 30 share? _____

HOMEWORK

Prime Factorization · Week of _____

Name: _____

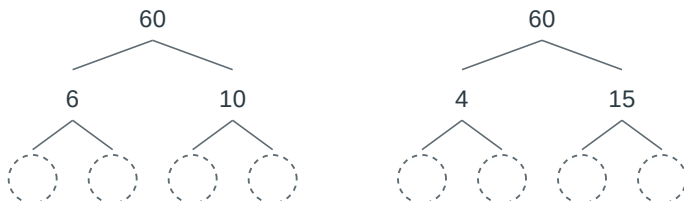
Due: Friday

Complete one half-page each night. No calculators. Circle the primes at the end of every branch.

WEDNESDAY

You do · With a hint

1. Two students started different factor trees for 60. Finish both.



2. What do you notice about the circled primes in both trees?

3. Write 60 as a product of primes: _____

THURSDAY

You do · On your own

1. Use a factor tree or a division ladder to find the prime factorization of 48.

Answer:

2. Jordan says the prime factorization of 20 is 4×5 . Do you agree? Explain.

3. Which number has the prime factorization $2 \times 3 \times 7$: 21, 42, 36 or 84? _____