MathVine - Pre-Algebra Name_____

Prime Factorization Date_____ Period_____

Write the prime factorization of the given number.

1) 98

2) 35

3) 15

4) 51

5) 50

6) 34

7) 69

8) 92

9) 57

Prime Factorization Date_____ Period_____

Write the prime factorization of the given number.

1) 98

Answer: $2 * 7 * 7$

2) 35

Answer: $5 * 7$

3) 15

Answer: $3 * 5$

4) 51

Answer: $3 * 17$

5) 50

Answer: $2 * 5 * 5$

6) 34

Answer: $2 * 17$

7) 69

Answer: $3 * 23$

8) 92

Answer: $2 * 2 * 23$

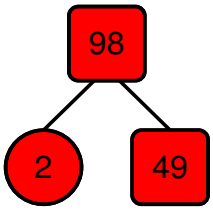
9) 57

Answer: $3 * 19$

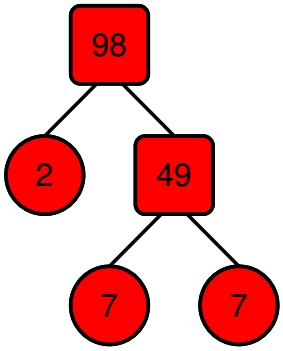
Prime Factorization Date_____ Period_____

Solution Steps

1) 98



$98 = 2 * 49$

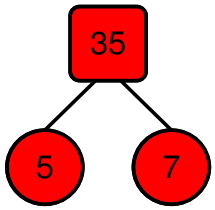


$49 = 7 * 7$

The prime factorization of 98 can be written as:

$2^{1} * 7^{2}$

2) 35

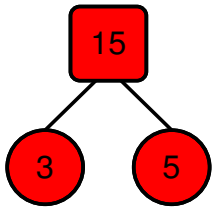


$35 = 5 * 7$

The prime factorization of 35 can be written as:

$5^{1} * 7^{1}$

3) 15

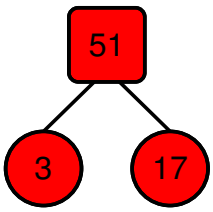


$15 = 3 * 5$

The prime factorization of 15 can be written as:

$3^{1} * 5^{1}$

4) 51

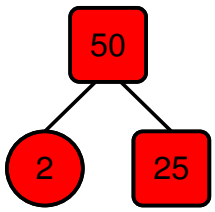


$51 = 3 * 17$

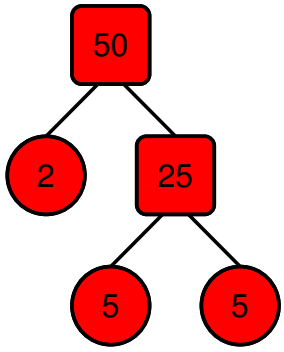
The prime factorization of 51 can be written as:

$3^{1} * (17)^{1}$

5) 50



$50 = 2 * 25$

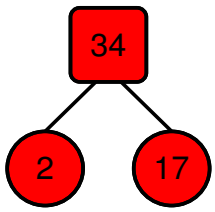


$25 = 5 * 5$

The prime factorization of 50 can be written as:

$2^{1} * 5^{2}$

6) 34

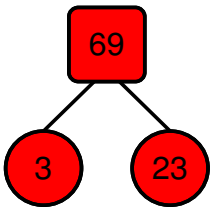


$34 = 2 * 17$

The prime factorization of 34 can be written as:

$2^{1} * (17)^{1}$

7) 69

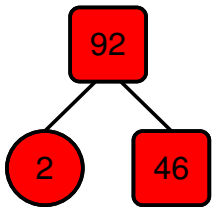


$69 = 3 * 23$

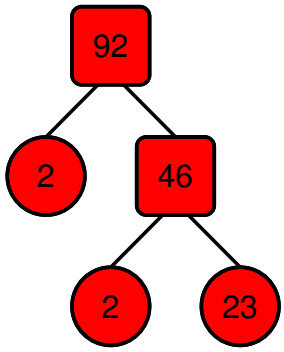
The prime factorization of 69 can be written as:

$3^{1} * (23)^{1}$

8) 92



$92 = 2 * 46$

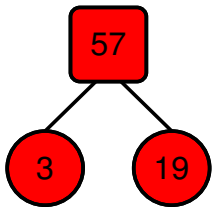


$46 = 2 * 23$

The prime factorization of 92 can be written as:

$2^{2} * (23)^{1}$

9) 57



$57 = 3 * 19$

The prime factorization of 57 can be written as:

$3^{1} * (19)^{1}$