

Name: _____ Date: _____

Prime Factorization

Q1. Write the greatest 3-digit number and express it in terms of its prime factors.

Sol.

Q2. Find all the prime factors of 1368

Sol.

Q3. In which of the following expressions, prime factorization is done?

Sol.

a. $48 = 2 \times 2 \times 2 \times 2 \times 3$	c. $24 = 2 \times 2 \times 6$
b. $60 = 2 \times 3 \times 10$	d. $72 = 2 \times 2 \times 2 \times 3 \times 3$

Prime Factorization

Q1. Write the greatest 3-digit number and express it in terms of its prime factors.

Sol. Greatest 3 digit number is 999.

3	999
3	333
3	111
37	37
	1

$$999 = 3 \times 3 \times 3 \times 37$$

Q2. Find all the prime factors of 1368

Sol.

2	1368
2	684
2	342
3	171
3	57
19	19
	1

$$1368 = 2 \times 2 \times 2 \times 3 \times 3 \times 19$$

Q3. In which of the following expressions, prime factorization is done?

Sol.

a. $48 = 2 \times 2 \times 2 \times 2 \times 3$	c. $24 = 2 \times 2 \times 6$
b. $60 = 2 \times 3 \times 10$	d. $72 = 2 \times 2 \times 2 \times 3 \times 3$