

Examples:

Find the HCF and then the LCM of 48 and 50 by first prime factorising

Find the HCF and then the LCM of 75 and 210 by first prime factorising.

Find  $\sqrt{324}$  by prime factorising

Find  $\sqrt[3]{74088}$  by prime factorising

If

$$960 = 2^6 \times 3 \times 5$$

$$600 = 2^3 \times 3 \times 5^2$$

$$2100 = 2^2 \times 3 \times 5^2 \times 7$$

Then determine:

the HCF of 960, 600 and 2100

the LCM of 960, 600 and 2100

The number of factors 2100 has

The number of factors 600 has

The smallest number which 600 could be multiplied by to give a perfect cube?

The smallest number which 960 could be multiplied by to give a perfect cube?

1 and 64 are the first numbers which are both a perfect square and a perfect cube. Which is the next smallest number which is both a perfect square and a perfect cube?