



Prime Factorization - Is Number a Multiple of Both - From Values as Factors

1 $1225 = 5^2 \cdot 7^2$

Is 1225 a multiple of both 385 and 175?

$$385 = 5 \cdot 7 \cdot 11$$

$$175 = 5^2 \cdot 7$$

is 1225 a multiple of 385 and 175?

A	B
Yes	No

2 $735 = 3 \cdot 5 \cdot 7^2$

Is 735 a multiple of both 245 and 105?

$$245 = 5 \cdot 7^2$$

$$105 = 3 \cdot 5 \cdot 7$$

is 735 a multiple of 245 and 105?

A	B
Yes	No

3 $1029 = 3 \cdot 7^3$

Is 1029 a multiple of both 147 and 343?

$$147 = 3 \cdot 7^2$$

$$343 = 7^3$$

is 1029 a multiple of 147 and 343?

A	B
Yes	No

4 $126 = 2 \cdot 3^2 \cdot 7$

Is 126 a multiple of both 63 and 18?

$$63 = 3^2 \cdot 7$$

$$18 = 2 \cdot 3^2$$

is 126 a multiple of 63 and 18?

A	B
Yes	No

5 $84 = 2^2 \cdot 3 \cdot 7$

Is 84 a multiple of both 30 and 28?

$$30 = 2 \cdot 3 \cdot 5$$

$$28 = 2^2 \cdot 7$$

is 84 a multiple of 30 and 28?

A	B
Yes	No

6 $315 = 3^2 \cdot 5 \cdot 7$

Is 315 a multiple of both 45 and 105?

$$45 = 3^2 \cdot 5$$

$$105 = 3 \cdot 5 \cdot 7$$

is 315 a multiple of 45 and 105?

A	B
Yes	No

7 $315 = 3^2 \cdot 5 \cdot 7$

Is 315 a multiple of both 70 and 105?

$$70 = 2 \cdot 5 \cdot 7$$

$$105 = 3 \cdot 5 \cdot 7$$

is 315 a multiple of 70 and 105?

A	B
Yes	No

8 $126 = 2 \cdot 3^2 \cdot 7$

Is 126 a multiple of both 18 and 42?

$$18 = 2 \cdot 3^2$$

$$42 = 2 \cdot 3 \cdot 7$$

is 126 a multiple of 18 and 42?

A	B
Yes	No