



Prime Factorization - Is Number a Factor of Both - From Variables as Factors

1 $d = 5 \cdot 7^2$

Is d a factor of both 490 and 735?

$$490 = 2 \cdot 5 \cdot 7^2$$

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

is d a factor of 490 and 735?

A	B
Yes	No

2 $d = 2 \cdot 5^2$

Is d a factor of both 525 and 330?

$$525 = 3 \cdot 5^2 \cdot 7$$

$$330 = 2 \cdot 3 \cdot 5 \cdot 11$$

is d a factor of 525 and 330?

A	B
Yes	No

3 $m = 2 \cdot 3 \cdot 5$

Is m a factor of both 210 and 330?

$$210 = 2 \cdot 3 \cdot 5 \cdot 7$$

$$330 = 2 \cdot 3 \cdot 5 \cdot 11$$

is m a factor of 210 and 330?

A	B
Yes	No

4 $p = 2 \cdot 5^2$

Is p a factor of both 210 and 825?

$$210 = 2 \cdot 3 \cdot 5 \cdot 7$$

$$825 = 3 \cdot 5^2 \cdot 11$$

is p a factor of 210 and 825?

A	B
Yes	No

5 $b = 2 \cdot 5 \cdot 7$

Is b a factor of both 210 and 770?

$$210 = 2 \cdot 3 \cdot 5 \cdot 7$$

$$770 = 2 \cdot 5 \cdot 7 \cdot 11$$

is b a factor of 210 and 770?

A	B
Yes	No

6 $d = 2^2 \cdot 5$

Is d a factor of both 60 and 140?

$$60 = 2^2 \cdot 3 \cdot 5$$

$$140 = 2^2 \cdot 5 \cdot 7$$

is d a factor of 60 and 140?

A	B
Yes	No

7 $z = 2 \cdot 3 \cdot 7$

Is z a factor of both 330 and 910?

$$330 = 2 \cdot 3 \cdot 5 \cdot 11$$

$$910 = 2 \cdot 5 \cdot 7 \cdot 13$$

is z a factor of 330 and 910?

A	B
Yes	No

8 $z = 2 \cdot 5 \cdot 7$

Is z a factor of both 210 and 770?

$$210 = 2 \cdot 3 \cdot 5 \cdot 7$$

$$770 = 2 \cdot 5 \cdot 7 \cdot 11$$

is z a factor of 210 and 770?

A	B
Yes	No