



Prime Factorization - Is Integer a Factor of Both - From Values as Factors

1

$20 = \bigcirc^2 \cdot \bigcirc$

Is 20 a factor of both 60 and 140?

$60 = 2^2 \cdot 3 \cdot 5$
 $140 = 2^2 \cdot 5 \cdot 7$

A	B
Yes	No

is 20 a factor of 60 and 140?

2

$50 = \bigcirc \cdot \bigcirc^2$

Is 50 a factor of both 525 and 330?

$525 = 3 \cdot 5^2 \cdot 7$
 $330 = 2 \cdot 3 \cdot 5 \cdot 11$

A	B
Yes	No

is 50 a factor of 525 and 330?

3

$70 = \bigcirc \cdot \bigcirc \cdot \bigcirc$

Is 70 a factor of both 330 and 1365?

$330 = 2 \cdot 3 \cdot 5 \cdot 11$
 $1365 = 3 \cdot 5 \cdot 7 \cdot 13$

A	B
Yes	No

is 70 a factor of 330 and 1365?

4

$63 = \bigcirc^2 \cdot \bigcirc$

Is 63 a factor of both 126 and 315?

$126 = 2 \cdot 3^2 \cdot 7$
 $315 = 3^2 \cdot 5 \cdot 7$

A	B
Yes	No

is 63 a factor of 126 and 315?

5

$30 = \bigcirc \cdot \bigcirc \cdot \bigcirc$

Is 30 a factor of both 462 and 910?

$462 = 2 \cdot 3 \cdot 7 \cdot 11$
 $910 = 2 \cdot 5 \cdot 7 \cdot 13$

A	B
Yes	No

is 30 a factor of 462 and 910?

6

$147 = \bigcirc \cdot \bigcirc^2$

Is 147 a factor of both 294 and 735?

$294 = 2 \cdot 3 \cdot 7^2$
 $735 = 3 \cdot 5 \cdot 7^2$

A	B
Yes	No

is 147 a factor of 294 and 735?

7

$30 = \bigcirc \cdot \bigcirc \cdot \bigcirc$

Is 30 a factor of both 210 and 330?

$210 = 2 \cdot 3 \cdot 5 \cdot 7$
 $330 = 2 \cdot 3 \cdot 5 \cdot 11$

A	B
Yes	No

is 30 a factor of 210 and 330?

8

$105 = \bigcirc \cdot \bigcirc \cdot \bigcirc$

Is 105 a factor of both 770 and 546?

$770 = 2 \cdot 5 \cdot 7 \cdot 11$
 $546 = 2 \cdot 3 \cdot 7 \cdot 13$

A	B
Yes	No

is 105 a factor of 770 and 546?