



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

1 $75 = 3 \cdot 5^2$

Is 75 a multiple of both 15 and 25?

$15 = 3 \cdot 5$
 $25 = 5^2$

is 75 a multiple of 15 and 25?

A	B
Yes	No

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

Is 42 a multiple of both 15 and 6?

$15 = 3 \cdot 5$
 $6 = 2 \cdot 3$

is 42 a multiple of 15 and 6?

A	B
Yes	No

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

Is 105 a multiple of both 15 and 35?

$15 = 3 \cdot 5$
 $35 = 5 \cdot 7$

is 105 a multiple of 15 and 35?

A	B
Yes	No

4 $105 = 3 \cdot 5 \cdot 7$

Is 105 a multiple of both 21 and 15?

$21 = 3 \cdot 7$
 $15 = 3 \cdot 5$

is 105 a multiple of 21 and 15?

A	B
Yes	No

5 $63 = 3^2 \cdot 7$

Is 63 a multiple of both 9 and 21?

$9 = 3^2$
 $21 = 3 \cdot 7$

is 63 a multiple of 9 and 21?

A	B
Yes	No

6 $147 = 3 \cdot 7^2$

Is 147 a multiple of both 15 and 49?

$15 = 3 \cdot 5$
 $49 = 7^2$

is 147 a multiple of 15 and 49?

A	B
Yes	No

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

Is 105 a multiple of both 35 and 21?

$35 = 5 \cdot 7$
 $21 = 3 \cdot 7$

is 105 a multiple of 35 and 21?

A	B
Yes	No

8 $28 = 2^2 \cdot 7$

Is 28 a multiple of both 4 and 14?

$4 = 2^2$
 $14 = 2 \cdot 7$

is 28 a multiple of 4 and 14?

A	B
Yes	No