



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

**1**  $70 = x \cdot z \cdot b$

Is 70 a factor of both 462 and 1365?

$462 = 2 \cdot 3 \cdot 7 \cdot 11$   
 $1365 = 3 \cdot 5 \cdot 7 \cdot 13$

is 70 a factor of  
462 and 1365?

A

Yes

B

No

**2**  $50 = m \cdot r^2$

Is 50 a factor of both 210 and 330?

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

is 50 a factor of  
210 and 330?

A

Yes

B

No

**3**  $30 = p \cdot z \cdot x$

Is 30 a factor of both 770 and 1365?

$770 = 2 \cdot 5 \cdot 7 \cdot 11$   
 $1365 = 3 \cdot 5 \cdot 7 \cdot 13$

is 30 a factor of  
770 and 1365?

A

Yes

B

No

**4**  $70 = n \cdot d \cdot c$

Is 70 a factor of both 462 and 390?

$462 = 2 \cdot 3 \cdot 7 \cdot 11$   
 $390 = 2 \cdot 3 \cdot 5 \cdot 13$

is 70 a factor of  
462 and 390?

A

Yes

B

No

**5**  $8 = m^3$

Is 8 a factor of both 60 and 84?

$60 = 2^2 \cdot 3 \cdot 5$   
 $84 = 2^2 \cdot 3 \cdot 7$

is 8 a factor of  
60 and 84?

A

Yes

B

No

**6**  $245 = p \cdot d^2$

Is 245 a factor of both 490 and 735?

$490 = 2 \cdot 5 \cdot 7^2$   
 $735 = 3 \cdot 5 \cdot 7^2$

is 245 a factor of  
490 and 735?

A

Yes

B

No

**7**  $105 = n \cdot p \cdot c$

Is 105 a factor of both 210 and 1155?

$210 = 2 \cdot 3 \cdot 5 \cdot 7$   
 $1155 = 3 \cdot 5 \cdot 7 \cdot 11$

is 105 a factor of  
210 and 1155?

A

Yes

B

No

**8**  $30 = n \cdot b \cdot y$

Is 30 a factor of both 210 and 330?

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

is 30 a factor of  
210 and 330?

A

Yes

B

No