



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

**1**  $10 = b \cdot p$

Is 10 a factor of both 105 and 165?

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

$$165 = 3 \cdot 5 \cdot 11$$

is 10 a factor of 105 and 165?

A

Yes

B

No

**2**  $49 = y^2$

Is 49 a factor of both 98 and 147?

$$98 = 2 \cdot 7^2$$

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

is 49 a factor of 98 and 147?

A

Yes

B

No

**3**  $21 = c \cdot r$

Is 21 a factor of both 70 and 66?

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

$$66 = 2 \cdot 3 \cdot 11$$

is 21 a factor of 70 and 66?

A

Yes

B

No

**4**  $10 = p \cdot c$

Is 10 a factor of both 30 and 70?

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

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

is 10 a factor of 30 and 70?

A

Yes

B

No

**5**  $6 = d \cdot b$

Is 6 a factor of both 70 and 165?

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

$$165 = 3 \cdot 5 \cdot 11$$

is 6 a factor of 70 and 165?

A

Yes

B

No

**6**  $9 = p^2$

Is 9 a factor of both 18 and 45?

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

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

is 9 a factor of 18 and 45?

A

Yes

B

No

**7**  $6 = p \cdot m$

Is 6 a factor of both 105 and 110?

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

$$110 = 2 \cdot 5 \cdot 11$$

is 6 a factor of 105 and 110?

A

Yes

B

No

**8**  $10 = b \cdot n$

Is 10 a factor of both 42 and 165?

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

$$165 = 3 \cdot 5 \cdot 11$$

is 10 a factor of 42 and 165?

A

Yes

B

No