



Math worksheet on 'Prime Factorization - Is Number a Factor of Both - From Variables as Factors (Level 1)'. Part of a broader unit on 'Factoring and Greatest Common Factor - Practice'

Learn online:

[app.mobius.academy/math/units/factoring\\_and\\_greatest\\_common\\_factor\\_practice/](http://app.mobius.academy/math/units/factoring_and_greatest_common_factor_practice/)

**1**  $b = 2^2$

Is  $b$  a factor of both 30 and 42?

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

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

is  $b$  a factor of 30 and 42?

<b>a</b>	<b>b</b>
Yes	No

**2**  $m = 3^2$

Is  $m$  a factor of both 18 and 45?

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

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

is  $m$  a factor of 18 and 45?

<b>a</b>	<b>b</b>
Yes	No

**3**  $z = 3^2$

Is  $z$  a factor of both 18 and 45?

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

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

is  $z$  a factor of 18 and 45?

<b>a</b>	<b>b</b>
Yes	No

**4**  $n = 3 \cdot 7$

Is  $n$  a factor of both 42 and 105?

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

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

is  $n$  a factor of 42 and 105?

<b>a</b>	<b>b</b>
Yes	No

**5**  $p = 3 \cdot 7$

Is  $p$  a factor of both 42 and 105?

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

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

is  $p$  a factor of 42 and 105?

<b>a</b>	<b>b</b>
Yes	No

**6**  $z = 3 \cdot 5$

Is  $z$  a factor of both 70 and 66?

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

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

is  $z$  a factor of 70 and 66?

<b>a</b>	<b>b</b>
Yes	No

**7**  $b = 7^2$

Is  $b$  a factor of both 98 and 147?

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

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

is  $b$  a factor of 98 and 147?

<b>a</b>	<b>b</b>
Yes	No