



Math worksheet on 'Prime Factorization - Is Number a Multiple of Both - From Values as Factors (Level 2)'. Part of a broader unit on 'Factoring and Venn Factor Diagrams - Practice'

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**1**

$$686 = 2 \cdot 7^3$$

$$245 = 5 \cdot 7^2$$

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

Is 686 a multiple of both 245 and 98?

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

is 686 a multiple of 245 and 98?

**2**

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

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

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

Is 126 a multiple of both 18 and 42?

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

is 126 a multiple of 18 and 42?

**3**

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

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

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

Is 525 a multiple of both 70 and 105?

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

is 525 a multiple of 70 and 105?

**4**

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

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

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

Is 294 a multiple of both 147 and 98?

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

is 294 a multiple of 147 and 98?

**5**

$$225 = 3^2 \cdot 5^2$$

$$75 = 3 \cdot 5^2$$

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

Is 225 a multiple of both 75 and 45?

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

is 225 a multiple of 75 and 45?

**6**

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

$$175 = 5^2 \cdot 7$$

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

Is 525 a multiple of both 175 and 105?

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

is 525 a multiple of 175 and 105?

**7**

$$1029 = 3 \cdot 7^3$$

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

$$343 = 7^3$$

Is 1029 a multiple of both 147 and 343?

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

is 1029 a multiple of 147 and 343?