



Math worksheet on 'Prime Factorization - Is Number a Multiple of Both - From Values as Factors (Level 3)'. Part of a broader unit on 'Factoring and Lowest Common Multiple - Advanced'

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1

$$675 = 3^3 \cdot 5^2$$

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

$$135 = 3^3 \cdot 5$$

Is 675 a multiple of both 525 and 135?

is 675 a multiple of 525 and 135?

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

2

$$700 = 2^2 \cdot 5^2 \cdot 7$$

$$150 = 2 \cdot 3 \cdot 5^2$$

$$100 = 2^2 \cdot 5^2$$

Is 700 a multiple of both 150 and 100?

is 700 a multiple of 150 and 100?

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

3

$$630 = 2 \cdot 3^2 \cdot 5 \cdot 7$$

$$570 = 2 \cdot 3 \cdot 5 \cdot 19$$

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

Is 630 a multiple of both 570 and 126?

is 630 a multiple of 570 and 126?

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

4

$$420 = 2^2 \cdot 3 \cdot 5 \cdot 7$$

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

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

Is 420 a multiple of both 84 and 210?

is 420 a multiple of 84 and 210?

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

5

$$700 = 2^2 \cdot 5^2 \cdot 7$$

$$100 = 2^2 \cdot 5^2$$

$$140 = 2^2 \cdot 5 \cdot 7$$

Is 700 a multiple of both 100 and 140?

is 700 a multiple of 100 and 140?

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

6

$$1470 = 2 \cdot 3 \cdot 5 \cdot 7^2$$

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

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

Is 1470 a multiple of both 735 and 210?

is 1470 a multiple of 735 and 210?

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

7

$$4802 = 2 \cdot 7^4$$

$$2401 = 7^4$$

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

Is 4802 a multiple of both 2401 and 686?

is 4802 a multiple of 2401 and 686?

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