



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

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

Is 1470 a multiple of both 210 and 294?

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

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

is 1470 a multiple of 210 and 294?

a

Yes

b

No

2

$$2625 = 3 \cdot 5^3 \cdot 7$$

Is 2625 a multiple of both 375 and 525?

$$375 = 3 \cdot 5^3$$

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

is 2625 a multiple of 375 and 525?

a

Yes

b

No

3

$$567 = 3^4 \cdot 7$$

Is 567 a multiple of both 81 and 189?

$$81 = 3^4$$

$$189 = 3^3 \cdot 7$$

is 567 a multiple of 81 and 189?

a

Yes

b

No

4

$$120 = 2^3 \cdot 3 \cdot 5$$

Is 120 a multiple of both 60 and 40?

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

$$40 = 2^3 \cdot 5$$

is 120 a multiple of 60 and 40?

a

Yes

b

No

5

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

Is 700 a multiple of both 140 and 350?

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

$$350 = 2 \cdot 5^2 \cdot 7$$

is 700 a multiple of 140 and 350?

a

Yes

b

No

6

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

Is 4802 a multiple of both 1274 and 2401?

$$1274 = 2 \cdot 7^2 \cdot 13$$

$$2401 = 7^4$$

is 4802 a multiple of 1274 and 2401?

a

Yes

b

No

7

$$3430 = 2 \cdot 5 \cdot 7^3$$

Is 3430 a multiple of both 686 and 490?

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

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

is 3430 a multiple of 686 and 490?

a

Yes

b

No