



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

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1

$$1715 = 5 \cdot 7^3$$

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

$$5145 = 3 \cdot 5 \cdot 7^3$$

Is 1715 a factor of both 3430 and 5145?

a	b
Yes	No

2

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

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

$$660 = 2^2 \cdot 3 \cdot 5 \cdot 11$$

Is 40 a factor of both 420 and 660?

a	b
Yes	No

3

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

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

$$3234 = 2 \cdot 3 \cdot 7^2 \cdot 11$$

Is 294 a factor of both 1470 and 3234?

a	b
Yes	No

4

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

$$3850 = 2 \cdot 5^2 \cdot 7 \cdot 11$$

$$4550 = 2 \cdot 5^2 \cdot 7 \cdot 13$$

Is 525 a factor of both 3850 and 4550?

a	b
Yes	No

5

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

$$450 = 2 \cdot 3^2 \cdot 5^2$$

$$1575 = 3^2 \cdot 5^2 \cdot 7$$

Is 225 a factor of both 450 and 1575?

a	b
Yes	No

6

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

$$2310 = 2 \cdot 3 \cdot 5 \cdot 7 \cdot 11$$

$$2730 = 2 \cdot 3 \cdot 5 \cdot 7 \cdot 13$$

Is 84 a factor of both 2310 and 2730?

a	b
Yes	No

7

$$56 = 2^3 \cdot 7$$

$$168 = 2^3 \cdot 3 \cdot 7$$

$$280 = 2^3 \cdot 5 \cdot 7$$

Is 56 a factor of both 168 and 280?

a	b
Yes	No