

Mathematics

LCM and prime factors

Lesson 8 of 8

Downloadable resource

Miss Kidd-Rossiter



Try this



Find the first five common multiples of 12 and 9.

Write each as a product of their prime factors.



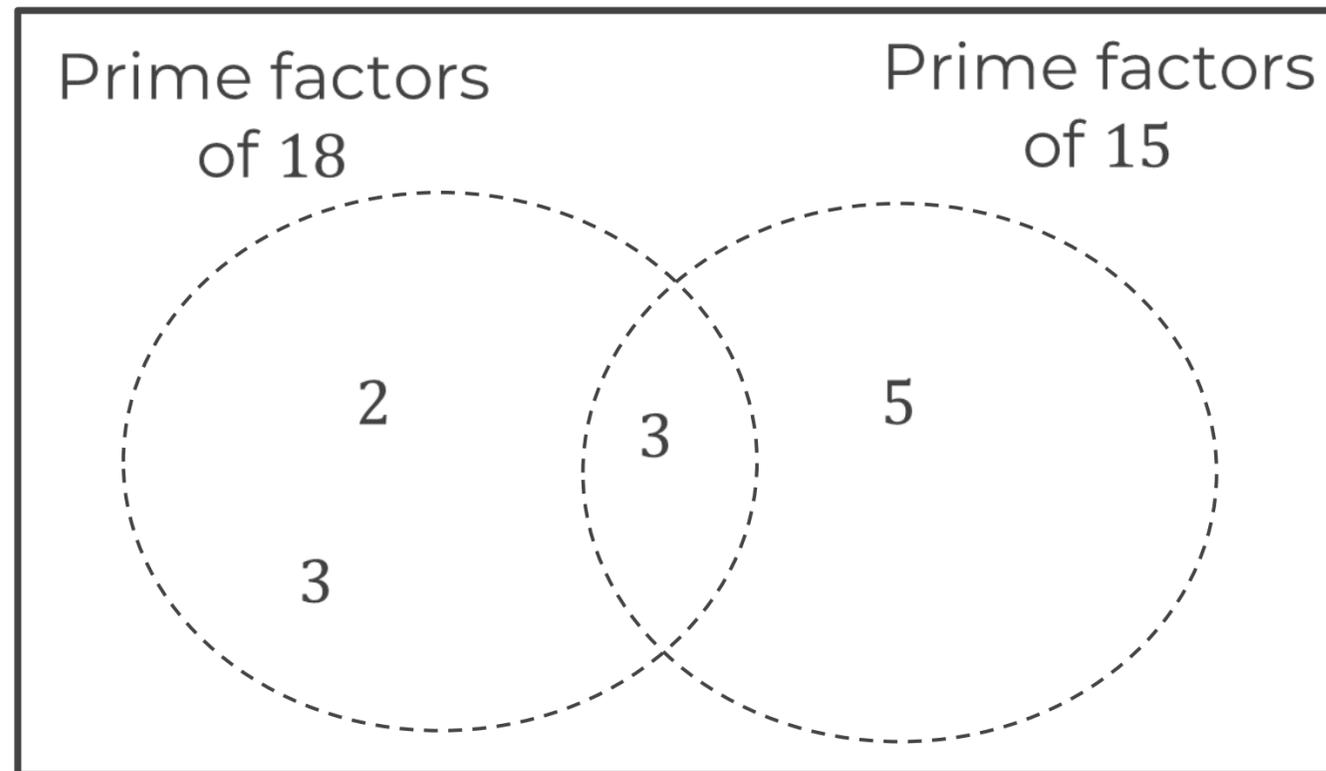
Connect

Explain how each strategy can help find the LCM.

15	15	15	15	15	15
18	18	18	18	18	18

18, 36, 54, 72, **90**, 108 ...

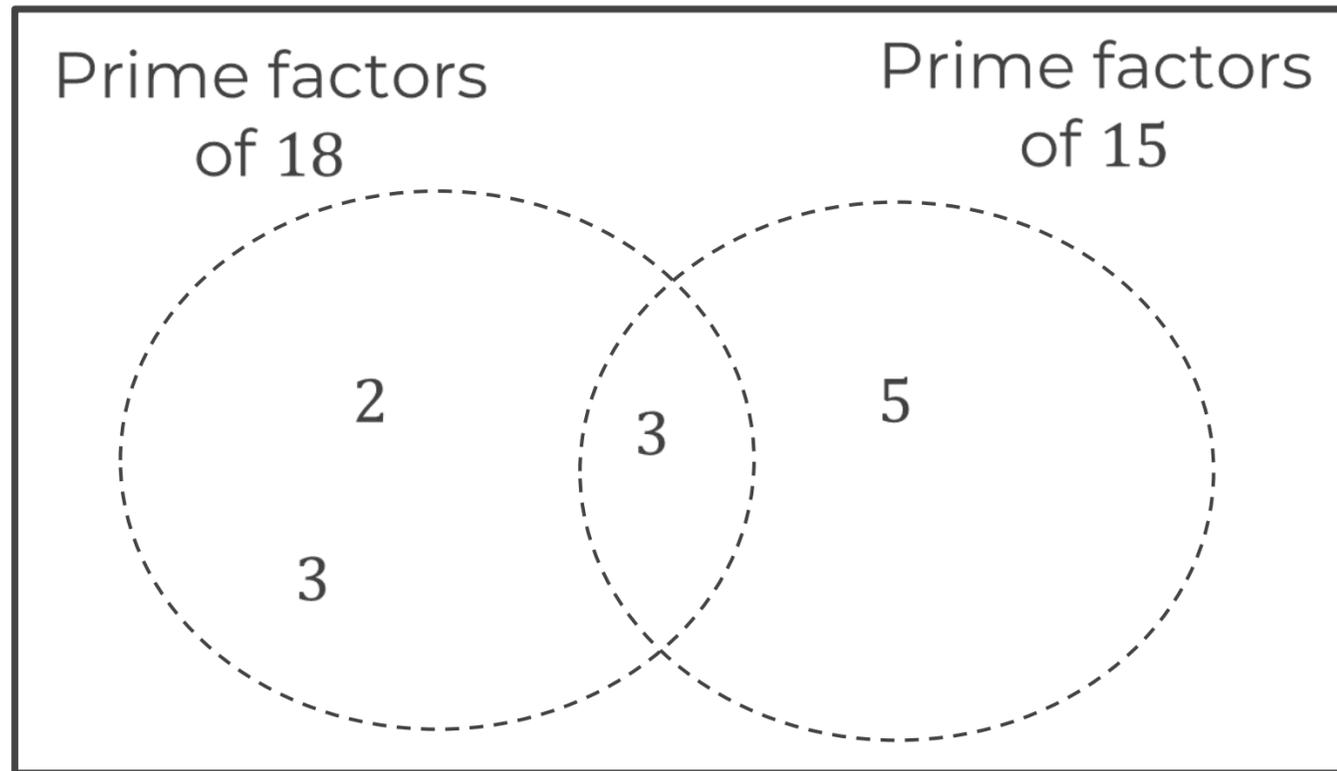
15, 30, 45, 60, 75, **90** ...



$$90 = \underbrace{2 \times 3 \times 3}_{18} \times \underbrace{3 \times 5}_{15}$$



Connect



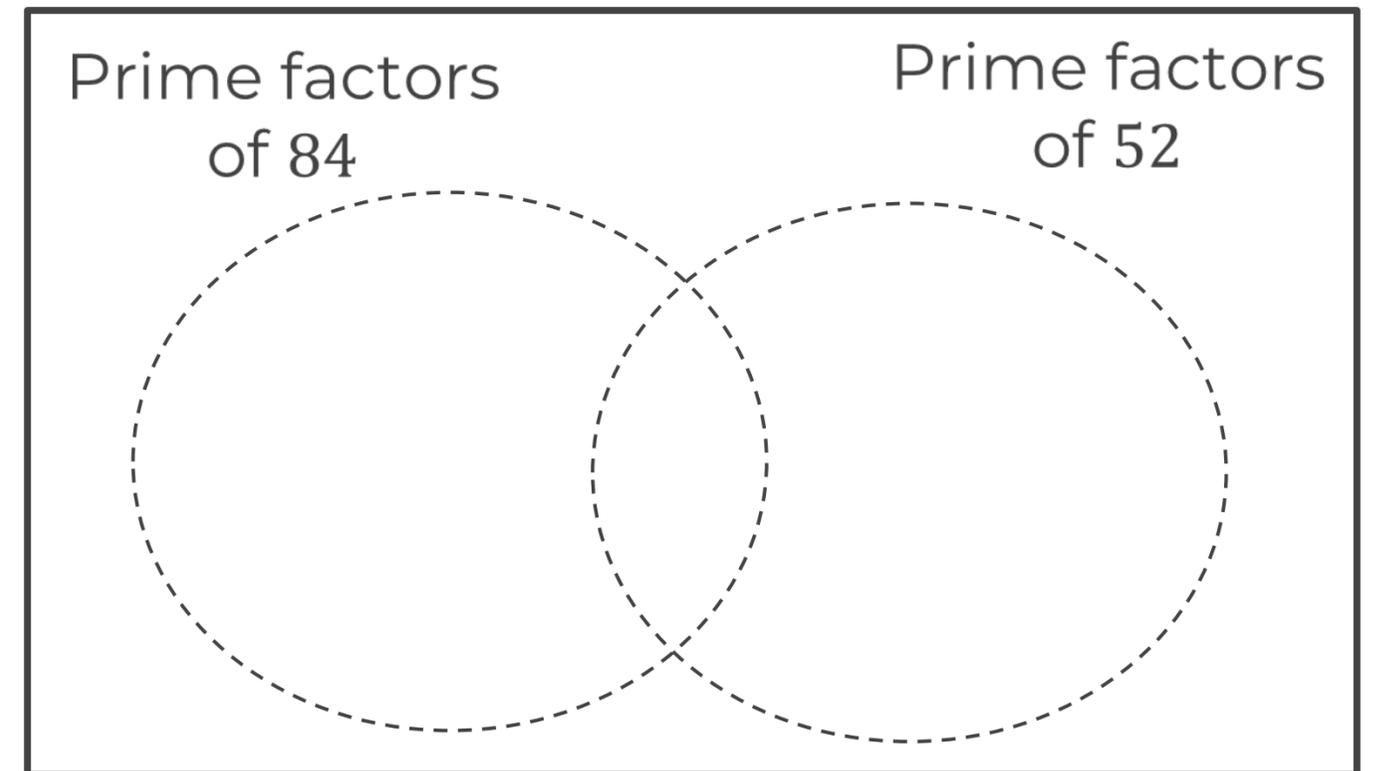
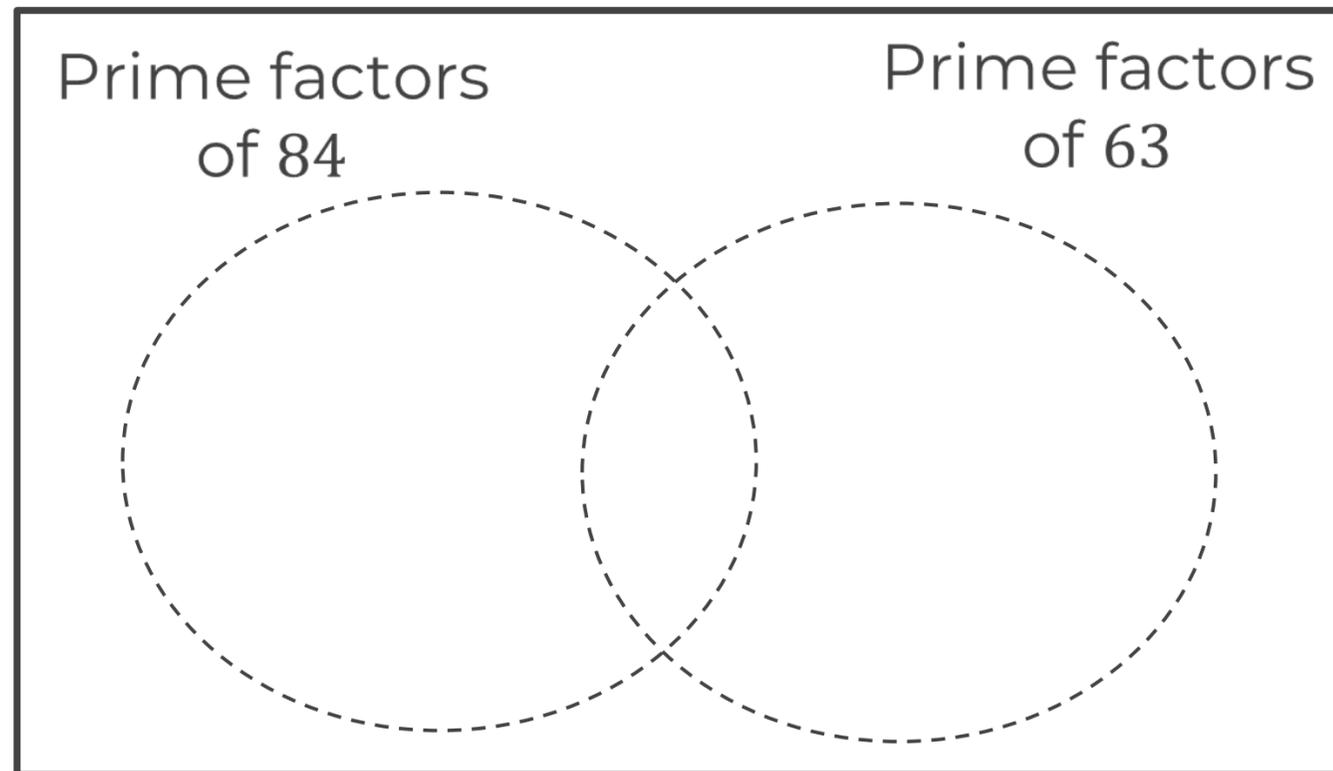
$$90 = 2 \times 3 \times 3 \times 5$$

The equation $90 = 2 \times 3 \times 3 \times 5$ is shown with two curly braces. One brace is under the factors 2, 3, and 3, with the number 18 written below it. The other brace is over the factors 3 and 5, with the number 15 written above it.



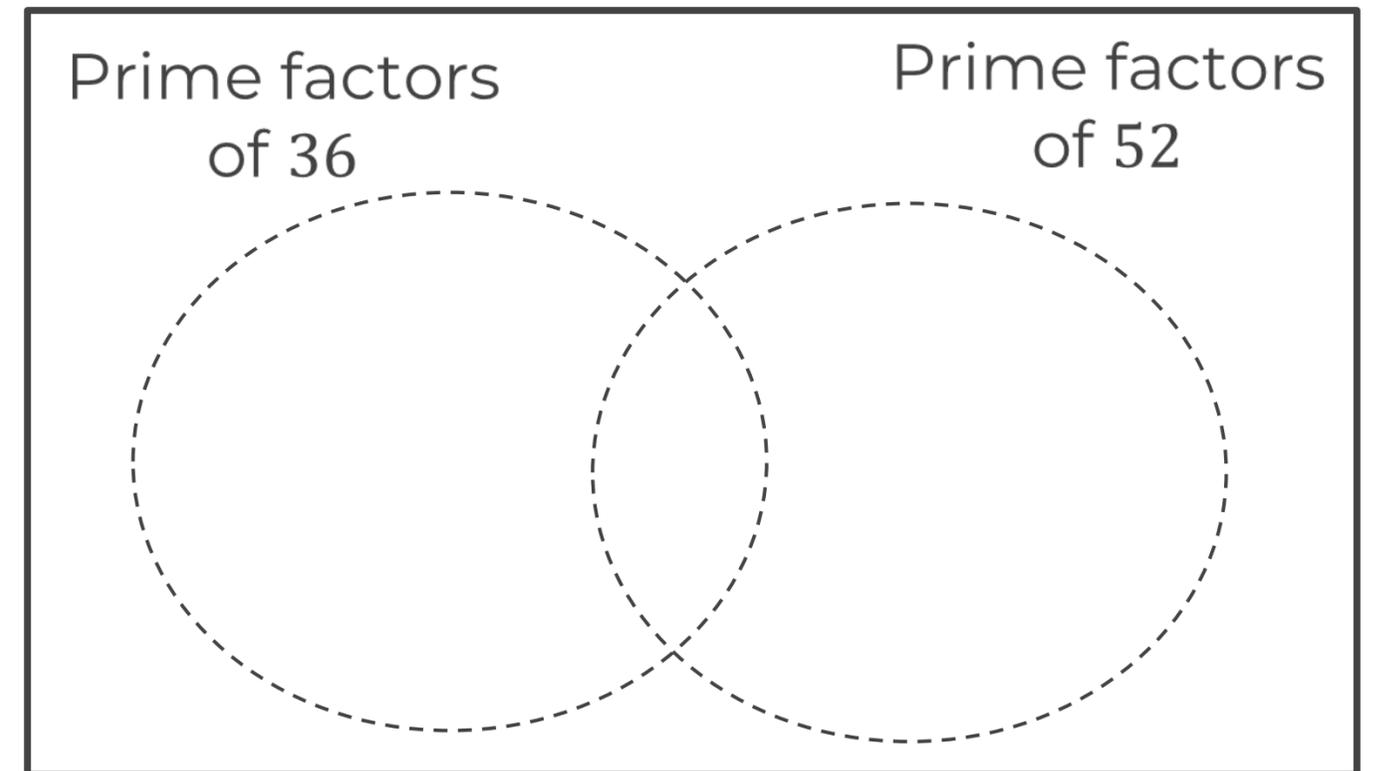
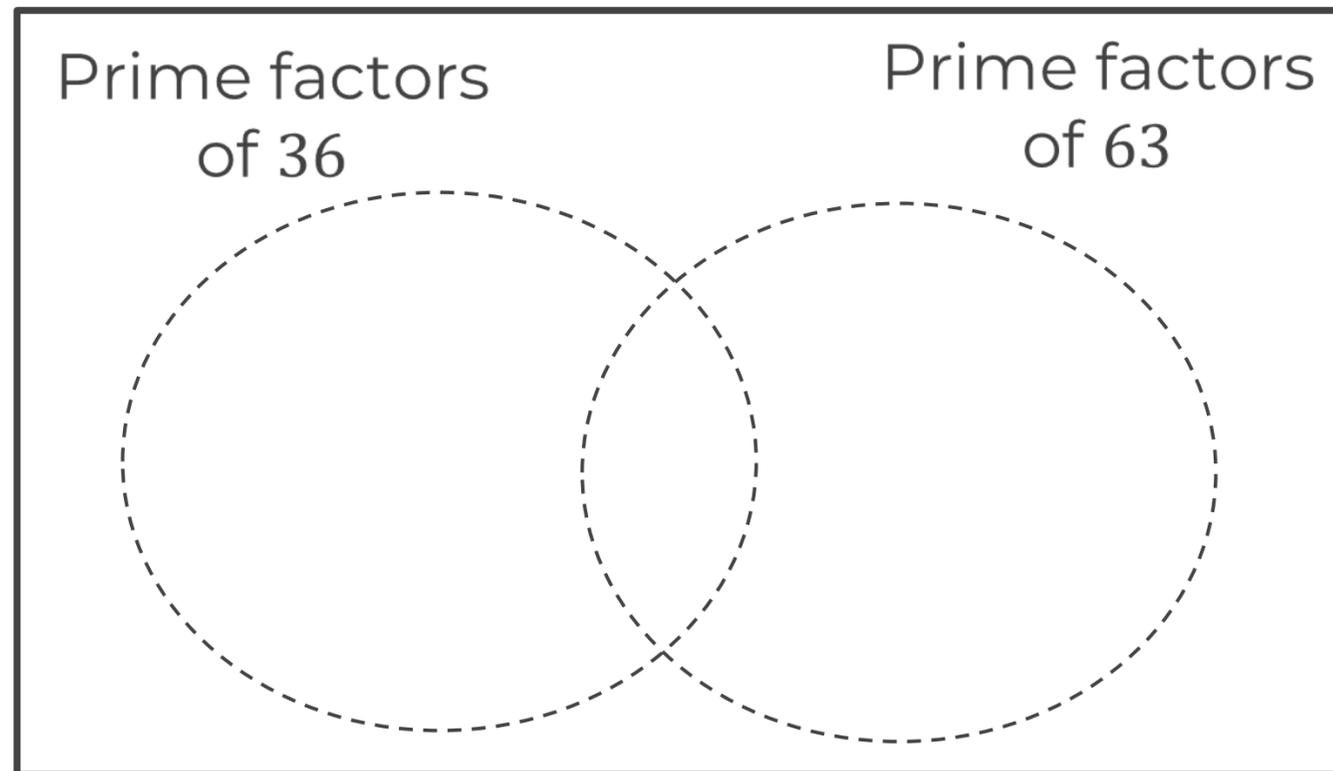
Independent task

Fill in the Venn diagrams. Find the LCM in each case.



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Independent task

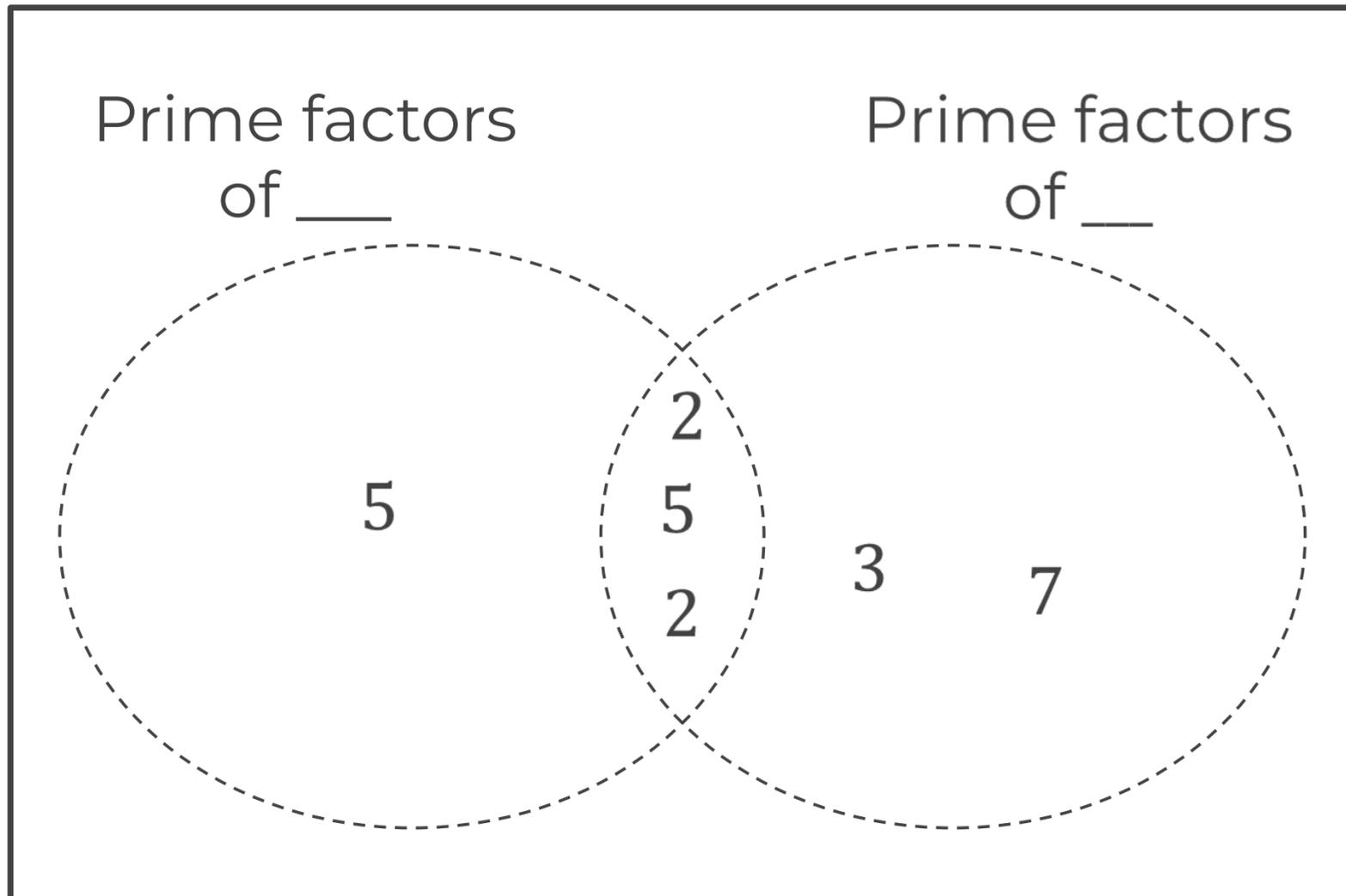
Find the lowest common multiple of 5 and 12.

Find the lowest common multiple of 144 and 264.



Explore

The prime factors of two numbers are in the Venn diagram. Find:



The two numbers

Any common factors

Their LCM

Their HCF

