

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.



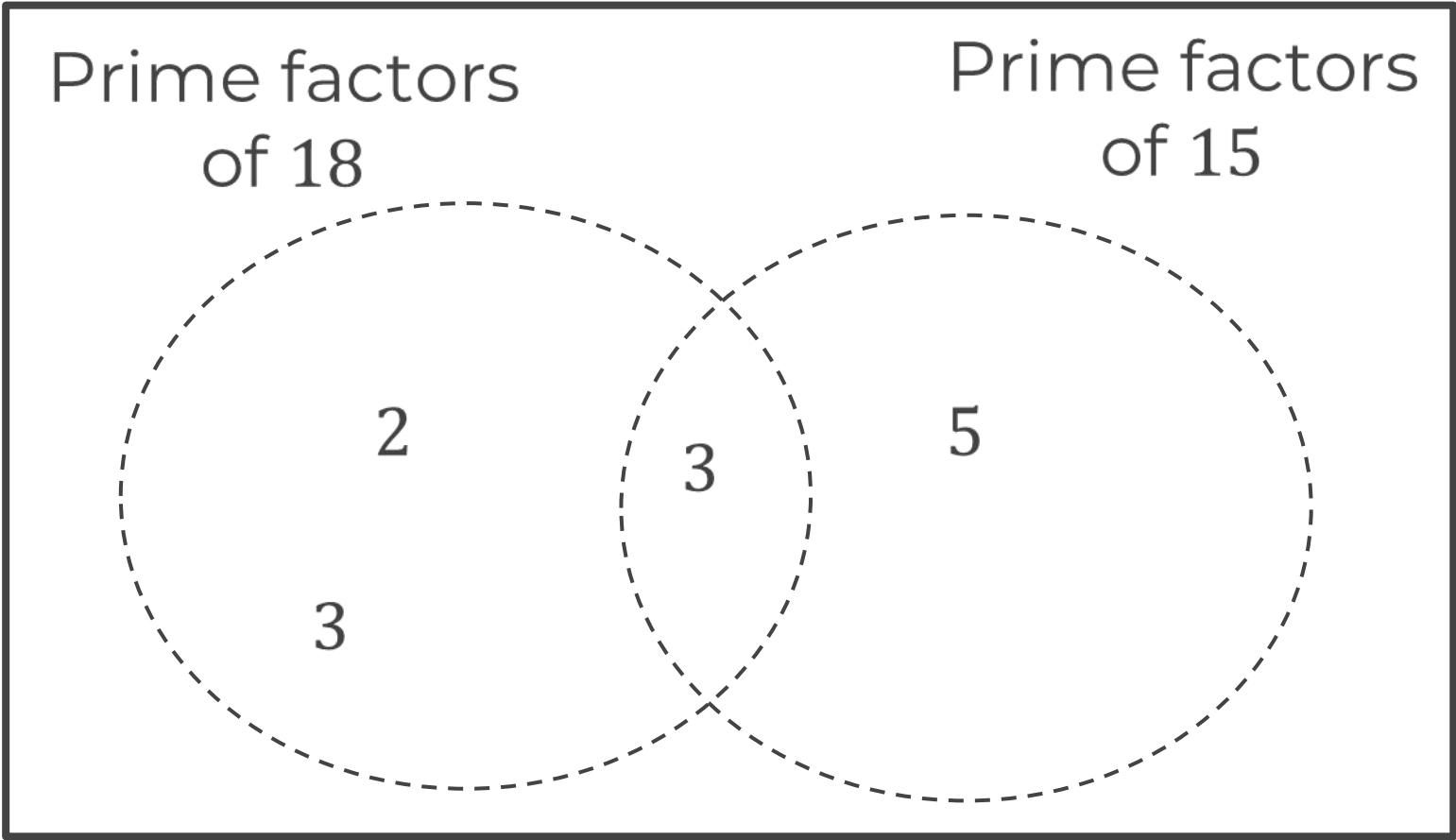
Connect

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 ...

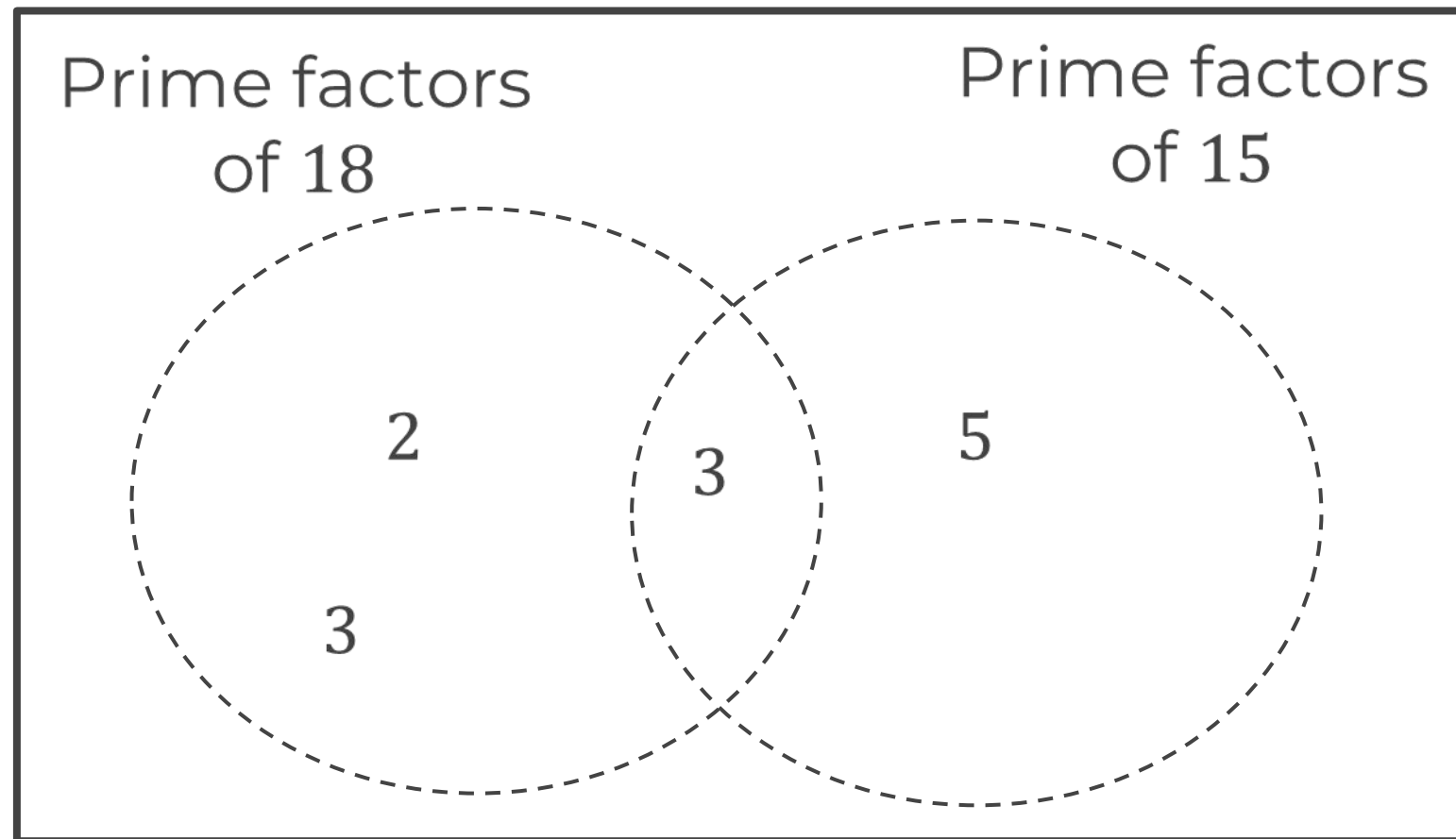
15 , 30 , 45 , 60 , 75 , **90** ...



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



Connect



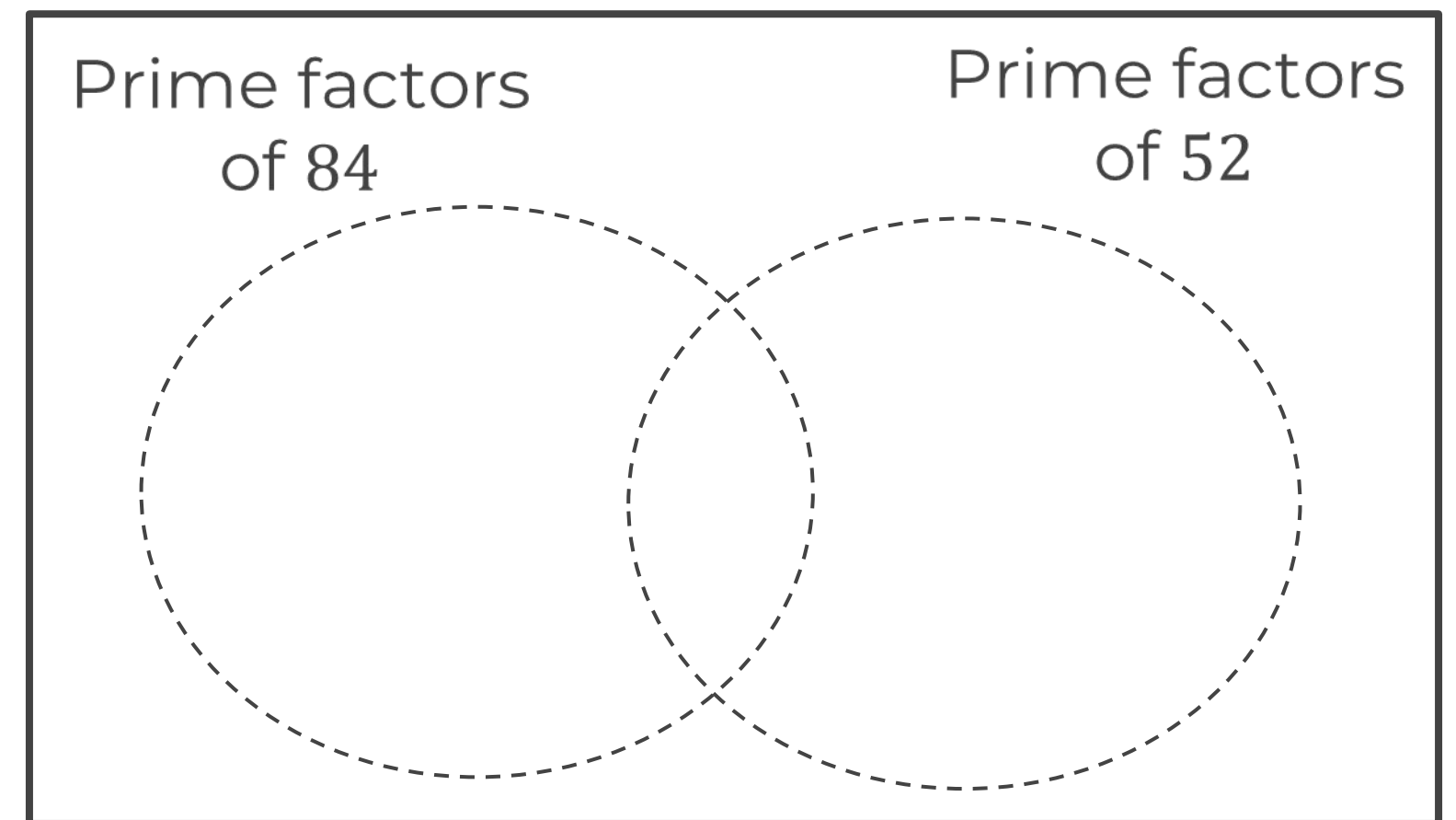
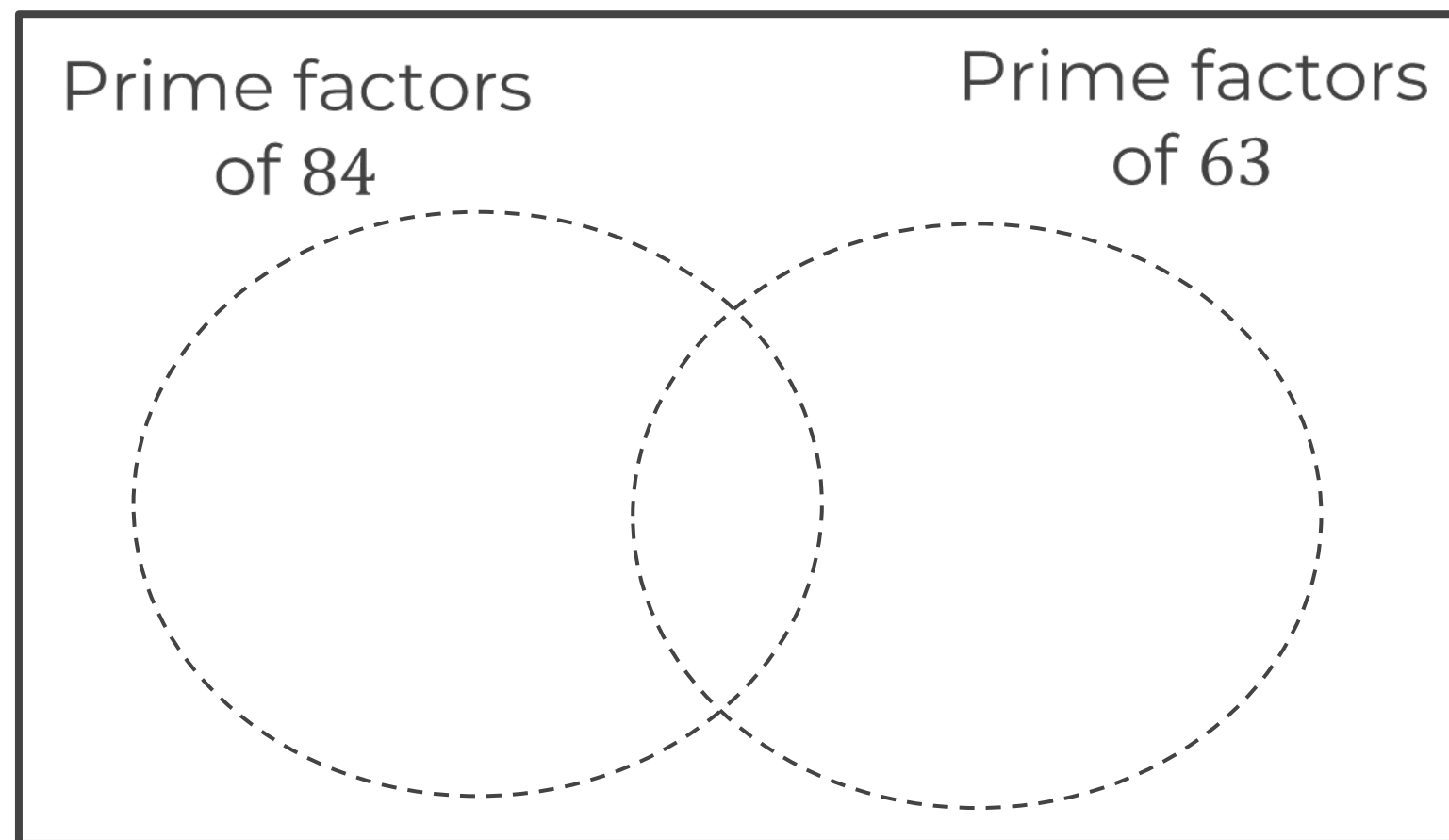
$$90 = 2 \times 3 \times 3 \times 5$$

The equation shows the prime factorization of 90. A bracket under the factors 2, 3, and 3 is labeled 18, and a bracket under the factors 3 and 5 is labeled 15.



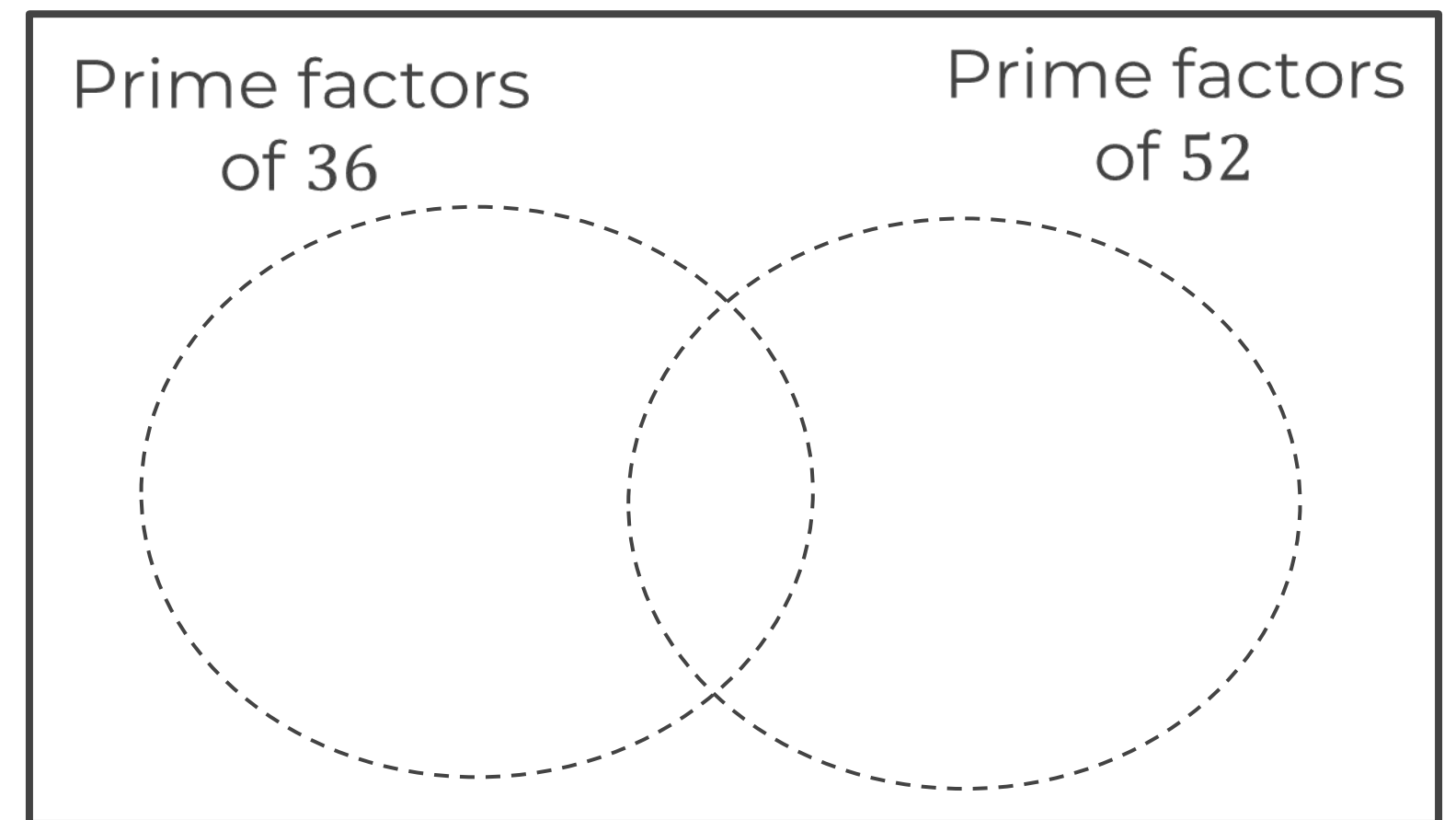
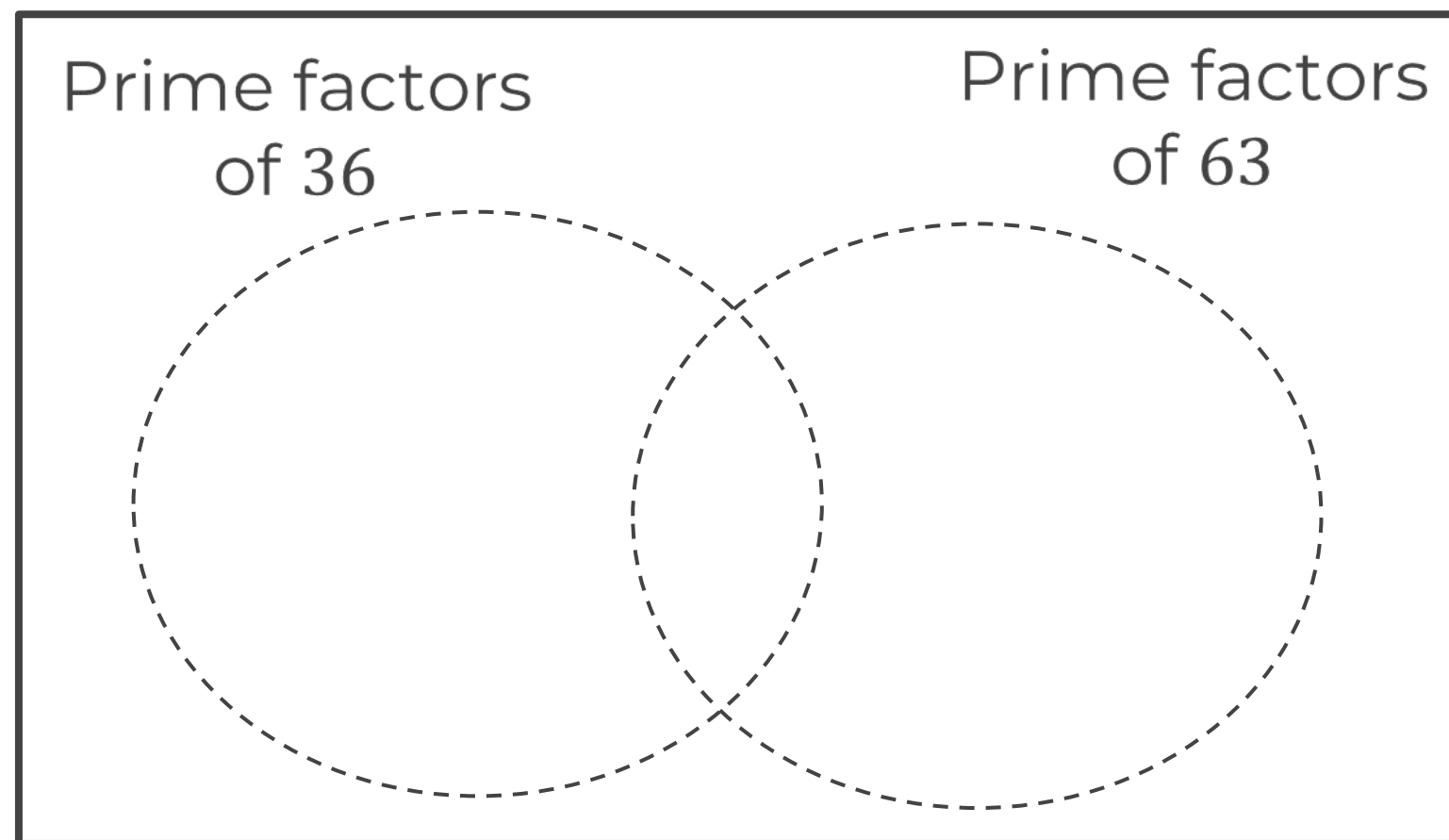
Independent task

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



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Independent task

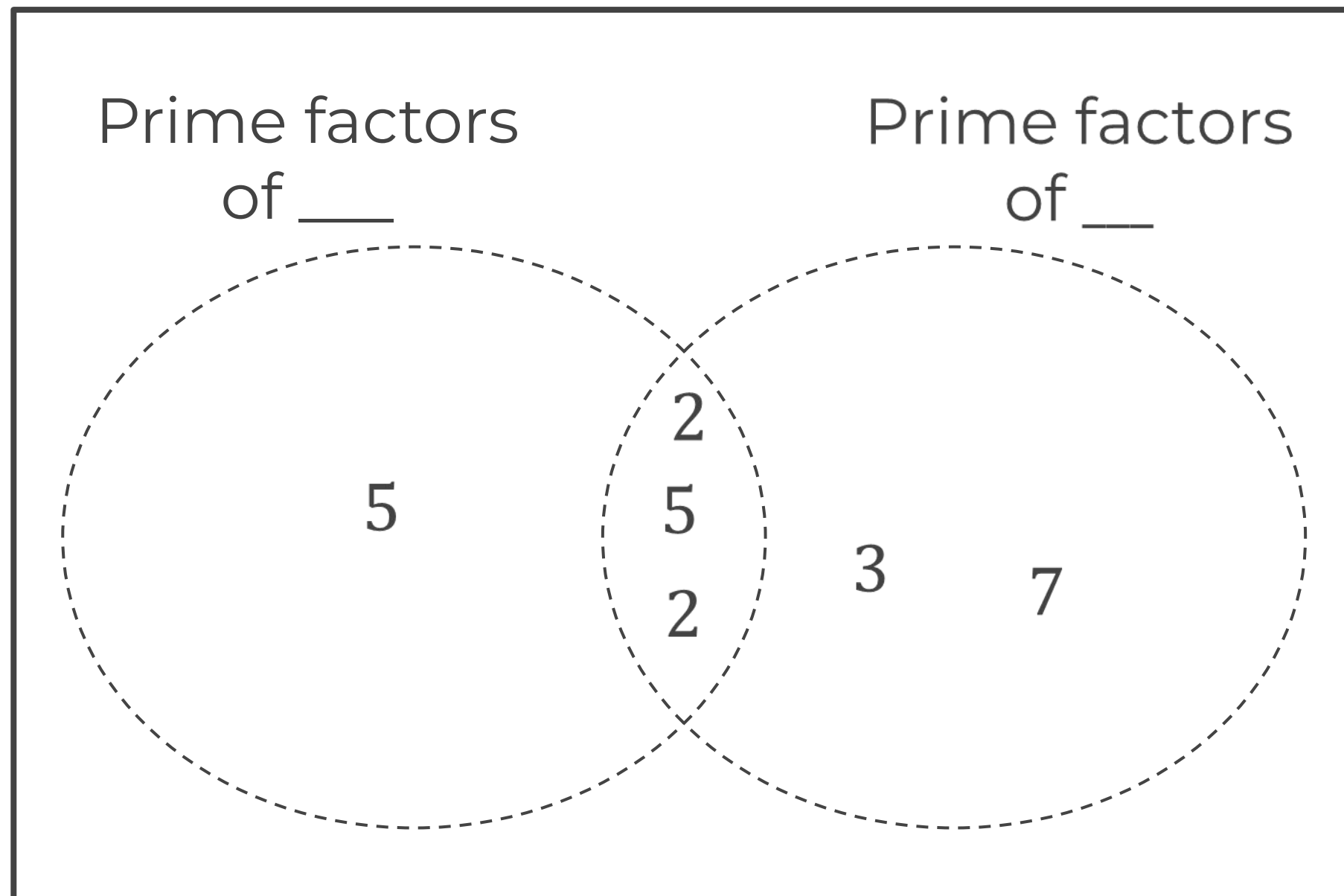
Find the lowest common multiple of 5 and 12.

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

