

## Exercise 13

In the following exercises, find the least common multiple of each pair of numbers using the prime factors method.

8, 12

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### Solution

Find the prime factorization of 8.

$$\begin{aligned}8 &= 2 \times 4 \\ &= 2 \times 2 \times 2\end{aligned}$$

Find the prime factorization of 12.

$$\begin{aligned}12 &= 2 \times 6 \\ &= 2 \times 2 \times 3\end{aligned}$$

The number that has all factors from both numbers is  $2 \times 2 \times 2 \times 3 = 24$ , so this is the least common multiple.