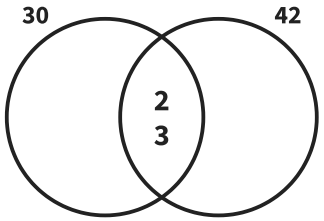
HCF and LCM with Venn diagrams

1

Find the HCF and LCM of 30 and 42.

30 = 2 × 3 × 5

42 = 2 × 3 × 7



HCF _____

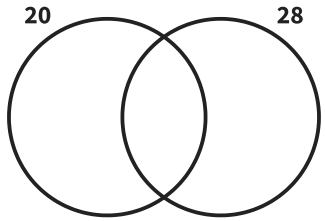
LCM _____

2

Find the HCF and LCM of 20 and 28.

20 = 2 × 2 × 5

28 = 2 × 2 × 7



HCF _____

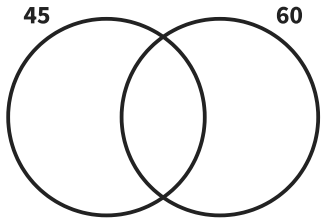
LCM _____

3

Find the HCF and LCM of 45 and 60.

45 = 3 × 3 × 5

60 = 2 × 2 × 3 × 5



HCF _____

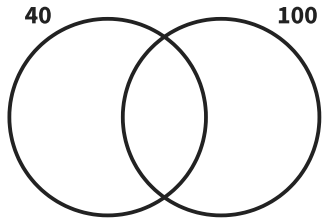
LCM _____

4

Find the HCF and LCM of 40 and 100.

40 = 2 × 2 × 2 × 5

100 = 2 × 2 × 5 × 5



HCF _____

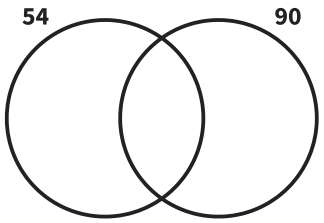
LCM _____

5

Write 54 and 90 as products of primes. Then find their HCF and LCM.

54 = _____

90 = _____



HCF _____

LCM _____

6

List the factors of 16 and of 20, and write down the HCF. Then list the first five multiples of each, and write down the LCM.

Factors of 16 _____

Factors of 20 _____

HCF _____

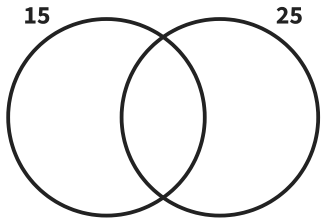
Multiples of 16 _____

Multiples of 20 _____

LCM _____

7

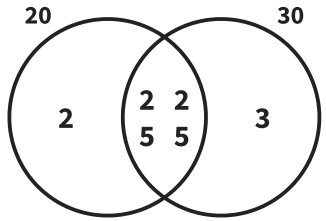
Two stage lights flash together as a show starts. One flashes every 15 seconds, the other every 25 seconds. After how many seconds do they next flash together?



Answer _____

8

Ravi writes 20 = 2 × 2 × 5 and 30 = 2 × 3 × 5. He draws this Venn diagram and says the HCF is 100. Explain his mistake. What is the HCF?



Mistake _____

HCF _____

HCF and LCM with Venn diagrams *further practice*

9

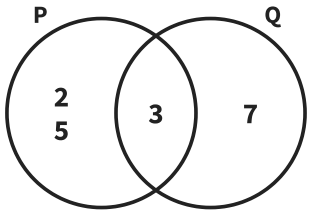
Find the HCF and LCM of 63 and 84.

HCF _____

LCM _____

10

The Venn diagram shows the prime factors of two numbers, P and Q. Work out P, Q and the HCF of P and Q.



P _____

Q _____

HCF _____

11

A café has 36 croissants and 48 muffins. It puts them on plates, every plate the same, with nothing left over. What is the greatest number of plates it can use?

_____

Answer _____

12

Asha runs a lap in 6 minutes and Ben runs a lap in 8 minutes. They set off together from the start line at 10:15. At what time are they next at the start line together?

_____

Answer _____

13

Which is bigger: the LCM of 12 and 30, or the LCM of 14 and 21?
Show how you know.

_____

Answer _____

14

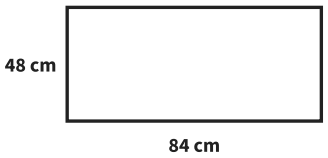
$A = 2 \times 3 \times 5 \times 7$ and $B = 2 \times 2 \times 3 \times 5$.
Find the HCF and the LCM of A and B.

HCF _____

LCM _____

15

This rectangle is covered exactly with square tiles, all the same size, with none cut. What is the largest side length the tiles can have?



_____

Answer _____

16

Tom says the HCF of two different numbers can never be one of the numbers.
Is Tom right? Explain.

_____

Answer _____