



Name: _____ **Date:** _____ **Score:** _____ / 31

- 1** List all the factors of 28. (2 marks)

Answer _____

- 2** Find all the factor pairs of 60 (2 marks)

Answer _____

- 3** List all the prime numbers between 20 and 35. (2 marks)

Answer _____

- 4** a. Write down all the common factors of 24 and 36
b. Write down the first three common multiples of 6 and 8 (3 marks)

Answer _____

- 5** Find the highest common factor (HCF) of 48 and 84 (2 marks)

Answer _____

- 6** Find the lowest common multiple (LCM) of 15 and 18 (3 marks)

Answer _____

7 For each problem, write down whether you would use the highest common factor (HCF) or the lowest common multiple (LCM). You do not need to solve them.

- a. Two buses leave the school at 8 am. One returns every 12 minutes and the other every 18 minutes. When are they next back at the school together?
- b. Two ribbons, 45 cm and 60 cm long, are cut into pieces that are all the same length, with nothing left over. What is the longest each piece can be?

(2 marks)

Answer _____

8 Write 84 as a product of its prime factors.

(2 marks)

Answer _____

9 Write 360 as a product of powers of its prime factors.

(3 marks)

Answer _____

10 Mr Hussain has 42 pencils and 56 rubbers.

He puts them all into identical packs, with nothing left over.

- a. What is the greatest number of packs he can make?
- b. How many pencils and how many rubbers are in each pack?

(3 marks)

Answer _____

11 Two warning buoys are anchored in a harbour.

One buoy flashes every 24 seconds.

The other buoy flashes every 40 seconds.

At 8 pm the two buoys flash at the same time.

Work out how many seconds later the two buoys next flash at the same time.

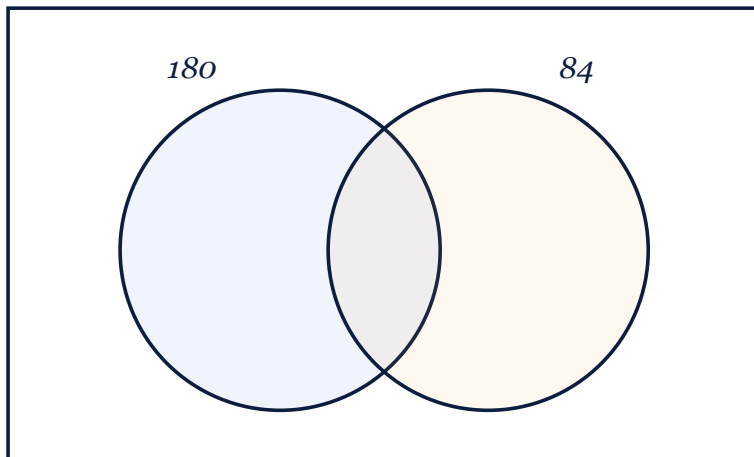
(3 marks)

Answer _____

12 $180 = 2^2 \times 3^2 \times 5$

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

- Complete the Venn diagram to show the prime factors of 180 and 84
- Find the highest common factor (HCF) of 180 and 84
- Find the lowest common multiple (LCM) of 180 and 84



(4 marks)

Answer _____

End of questions | Total 31 marks