Name: _____ Date: _____

Common multiples

Write the answer in the box. Some answers have a pick list.



1 A Venn diagram has a circle for multiples of 3 and another circle for multiples of an unknown number. The card 18 is in both circles. The card 3 is only in the first circle. Which could be the unknown number?

💡 Hint: List the multiples of each number. Which ones are in both lists?

◯ 6 ◯ 19 ◯ 3 ◯ 1

6

2 A Venn diagram has a circle for multiples of 3 and another circle for multiples of an unknown number. The card 30 is in both circles. The card 3 is only in the first circle. Which could be the unknown number?

💡 Hint: List the multiples of each number. Which ones are in both lists?

◯ 31 ◯ 1 ◯ 10 ◯ 3

10

3 Ben says every positive multiple of 5 is also a multiple of 10. Check the claim with a number example.

💡 Hint: List the multiples of each number. Which ones are in both lists?

False. 15 is 5 × 3 and lies between 10 and 20, so it is not a multiple of 10.

4 Create four different positive number cards for a Venn diagram labelled Multiples of 5 and Multiples of 7. Give one card in each region, including outside both.

💡 Hint: List the multiples of each number. Which ones are in both lists?

5 only: 5. 7 only: 7. Both: 35. Neither: 1.

5 A Venn diagram has a circle for multiples of 3 and another circle for multiples of an unknown number. The card 12 is in both circles. The card 3 is only in the first circle. Which could be the unknown number?

💡 Hint: List the multiples of each number. Which ones are in both lists?

- ◯ 1
- ◯ 4
- ◯ 3
- ◯ 13

4

6 Ben says every positive multiple of 6 is also a multiple of 12. Check the claim with a number example.

💡 Hint: List the multiples of each number. Which ones are in both lists?

False. 18 is 6 × 3 and lies between 12 and 24, so it is not a multiple of 12.

7 Two timers beep together at the start. Choose two different repeat intervals between 2 and 10 seconds inclusive so they next beep together after exactly 24 seconds. Show how you checked.

💡 Hint: List the multiples of each number. Which ones are in both lists?

Use 6 and 8 seconds. The first matching positive times in their lists occur at 24 seconds.

8 Two lights flash together now. One flashes every 4 seconds and the other every 6 seconds. After how many seconds will they first flash together again?

💡 Hint: List the multiples of each number. Which ones are in both lists?

12

9 Two lights flash together now. One flashes every 3 seconds and the other every 5 seconds. After how many seconds will they first flash together again?

💡 Hint: List the multiples of each number. Which ones are in both lists?

15

10 Two timers beep together at the start. Choose two different repeat intervals between 2 and 10 seconds inclusive so they next beep together after exactly 20 seconds. Show how you checked.

💡 Hint: List the multiples of each number. Which ones are in both lists?

Use 4 and 5 seconds. The first matching positive times in their lists occur at 20 seconds.