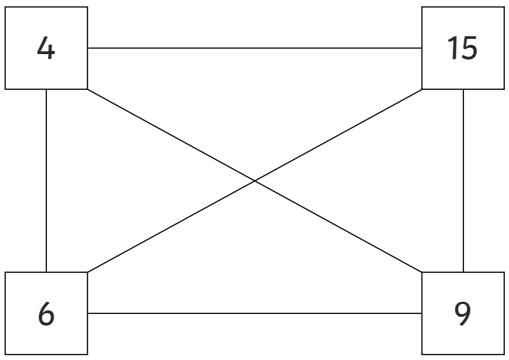
Factors, Multiples and Prime Numbers

I can identify common factors, common multiples and prime numbers.

1) What is the highest common factor of 32 and 52 multiplied by the highest common factor of 12 and 48?

_____

2) Work out the lowest common multiple of each pair of linked numbers.



4 and 15 _____

4 and 9 _____

4 and 6 _____

15 and 9 _____

15 and 6 _____

9 and 6 _____

3) Write three pairs of prime numbers that, when added together, create square numbers.

_____ and _____

_____ and _____

_____ and _____

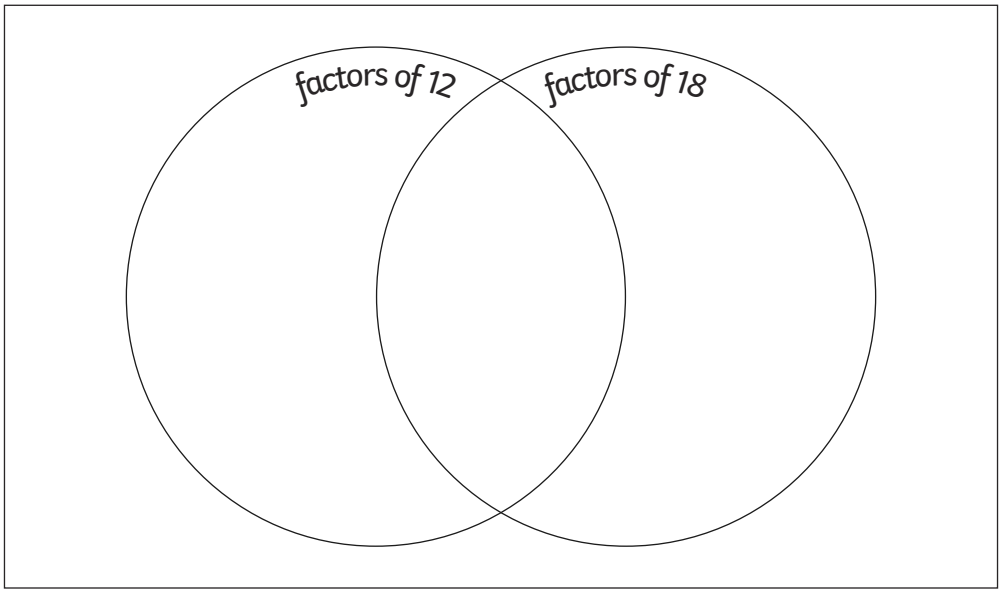
Factors, Multiples and Prime Numbers **Answers**

Question	Answer
1.	What is the highest common factor of 32 and 52 multiplied by the highest common factor of 12 and 48?
	$4 \times 12 = 48$
2.	Work out the lowest common multiple of each pair of linked numbers.
	4 and 15 **60** 4 and 9 **36** 4 and 6 **12** 15 and 9 **45** 15 and 6 **30** 9 and 6 **18**
3.	Write three pairs of prime numbers that, when added together, create square numbers.
	Example answers: 2 and 7, 11 and 5, 13 and 3, 47 and 2, 23 and 2

Factors, Multiples and Prime Numbers

I can identify common factors, common multiples and prime numbers.

1) Use the numbers 1-18 to complete this Venn diagram:



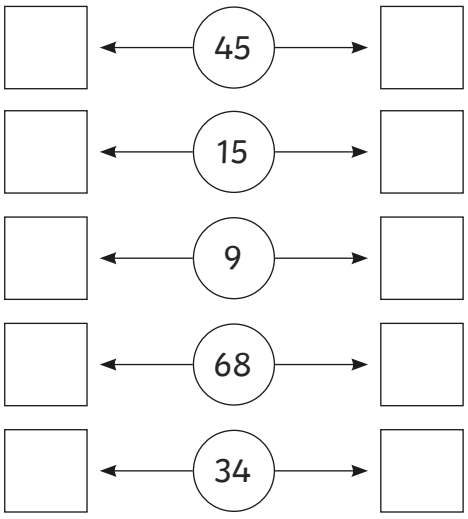
2) What is the lowest common multiple for each set of numbers?

12 and 20 _____

6 and 14 _____

11 and 15 _____

3) Look at the numbers in the circles. Write the nearest prime number lower than the number in the left-hand boxes and the nearest prime number higher in the right-hand boxes.



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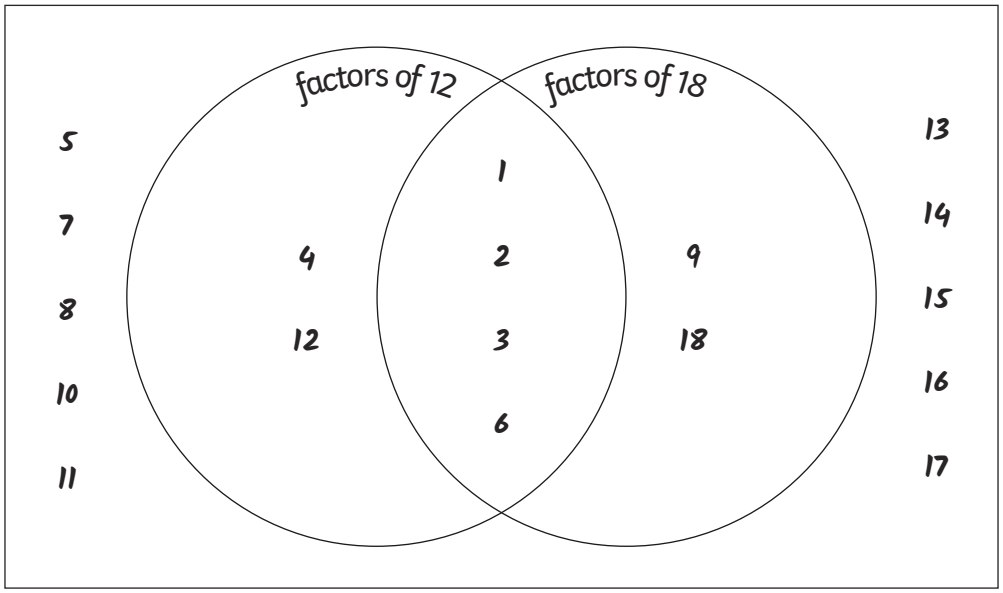


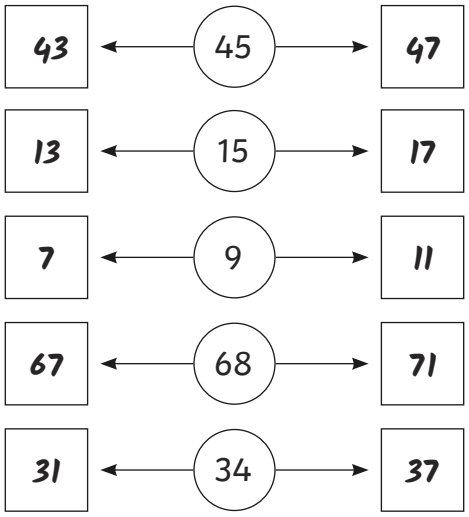
2.	What is the lowest common multiple for each set of numbers?

12 and 20 **60**

6 and 14 **42**

11 and 15 **165**

3.	Look at the numbers in the circles. Write the nearest prime number lower than the number in the left-hand boxes and the nearest prime number higher in the right-hand boxes.



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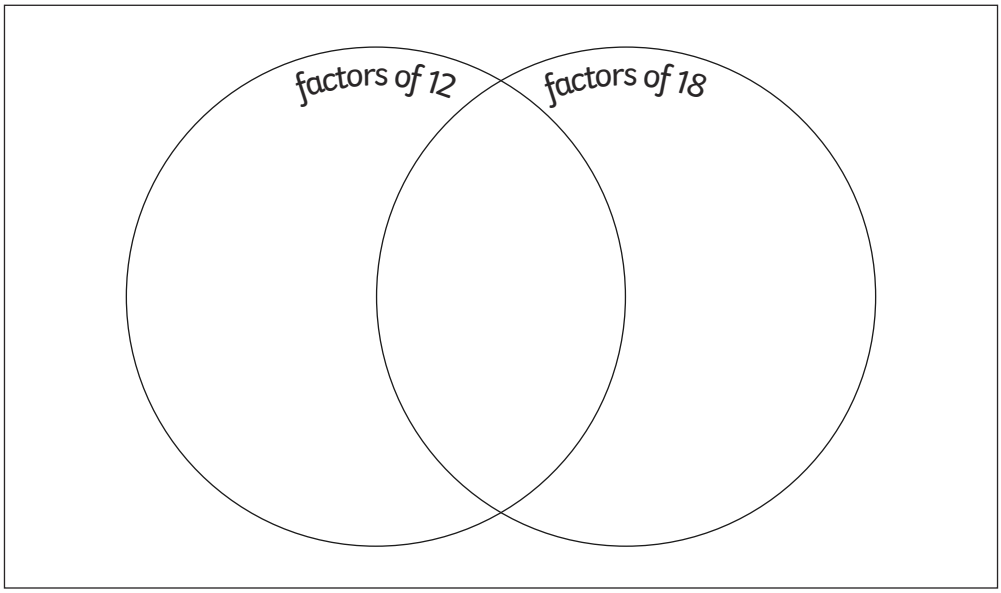

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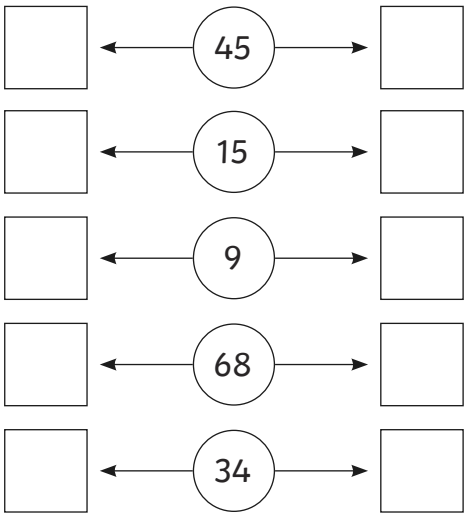

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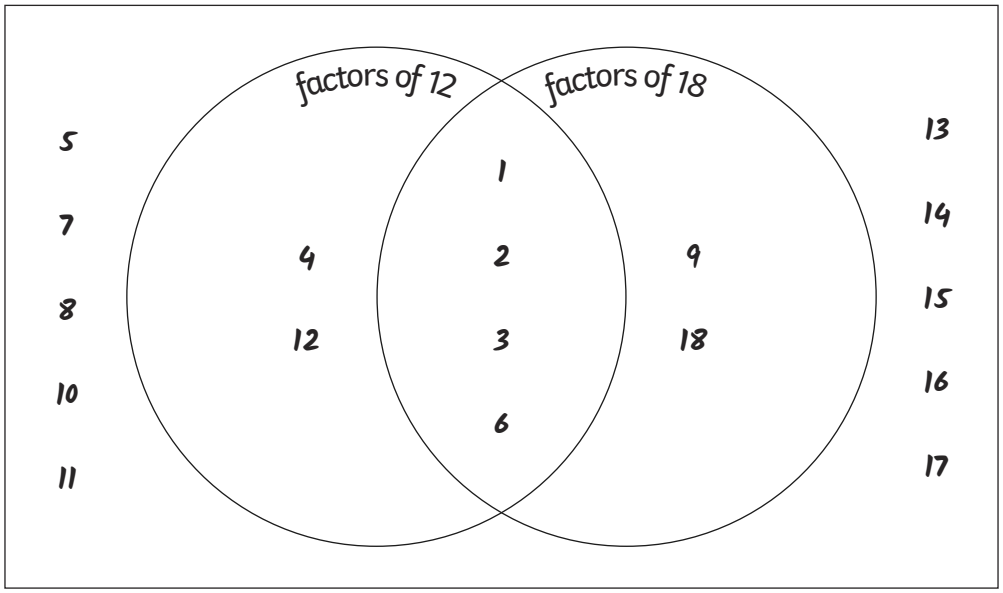

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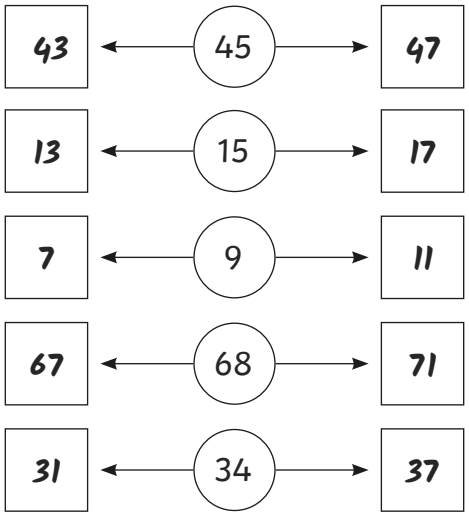


Factors, Multiples and Prime Numbers

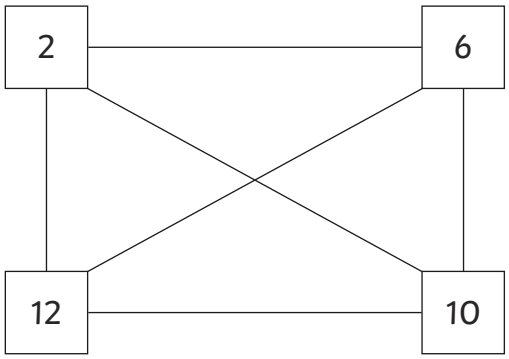
I can identify common factors, common multiples and prime numbers.

1) a) What is the highest common factor of 24 and 36? _____

b) What is the highest common factor of 21 and 54? _____

c) What is the highest common factor of 19 and 48? _____

2) Work out the lowest common multiple of each pair of linked numbers.



2 and 6 _____

6 and 10 _____

6 and 12 _____

2 and 10 _____

10 and 12 _____

2 and 12 _____

Which pairs of numbers have the same lowest common multiple?

_____

3) Oh no! The maths machine has broken!
Can you help identify the prime numbers by circling the correct balls?

45	59	32	21
134	121	85	73
53	147	163	171

Factors, Multiples and Prime Numbers **Answers**

Question	Answer
1.	
	a) What is the highest common factor of 24 and 36? **12** b) What is the highest common factor of 21 and 54? **3** c) What is the highest common factor of 19 and 48? **1**
2.	Work out the lowest common multiple of each pair of linked numbers.
	2 and 6 **6** 2 and 10 **10** 6 and 10 **30** 10 and 12 **60** 6 and 12 **12** 2 and 12 **12** Which pairs of numbers have the same lowest common multiple? **6 and 12, 2 and 12**
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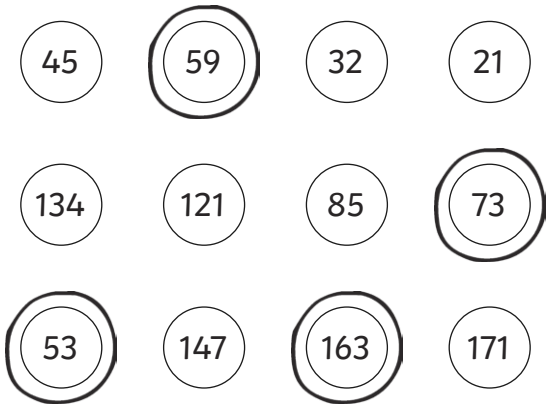

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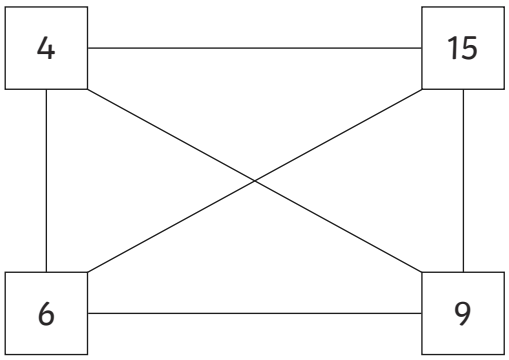

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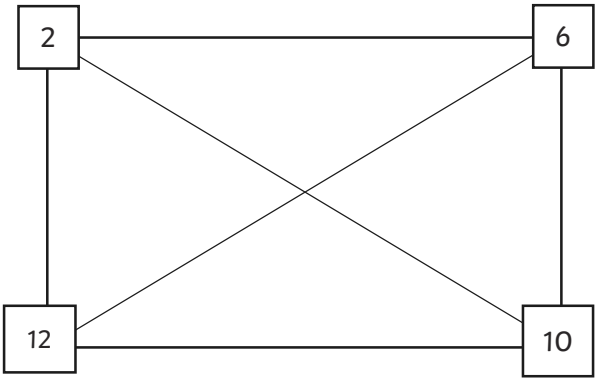

2 and 6 _____

6 and 10 _____

6 and 12 _____

2 and 10 _____

10 and 12 _____

2 and 12 _____

Which pairs of numbers have the same lowest common multiple?

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2 and 6 **6**

2 and 10 **10**

6 and 10 **30**

10 and 12 **60**

6 and 12 **12**

2 and 12 **12**

Which pairs of numbers have the same lowest common multiple? **6 and 12, 2 and 12**

3.	Oh no! The maths machine has broken! Can you help identify the prime numbers by circling the correct balls?