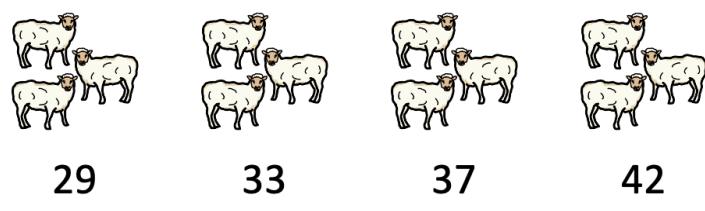


**NC. Objective:** To identify common factors, common multiples and prime numbers.

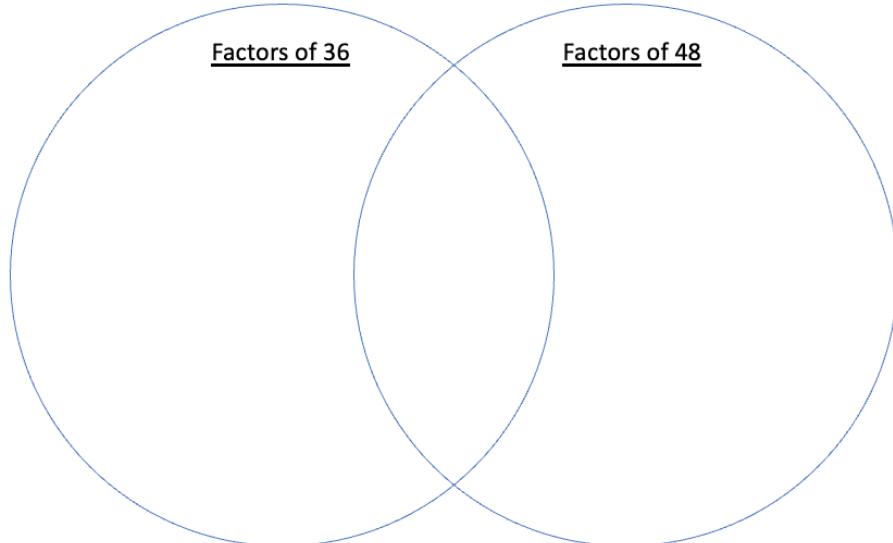
1. The shepherd organises his sheep in groups – called flocks.

Which of these numbers could be the size of a prime-numbered flock of sheep?  
Explain why.



2. The Winter Feast requires 36 pies and 48 loaves of bread. The chef wants to arrange both items into equal groups.

Use the Venn diagram to show the common factors of 36 and 48.



3. The palace cooks prepare 5 fruit pies every hour and 3 chicken pies every hour.

After how many hours will they have prepared the same number of fruit and chicken pies?



4. Camillo finds a locked chest that will only open if the code is a prime number.

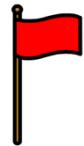
The numbers written on the lock are: 51, 61, 65, 71, 77



Which numbers could open the chest? Explain how you checked.

5. Polixenes placed flags every 8 metres along the palace wall.

Write the first eight multiples of eight.



6. During the Christmas season, King Leontes prepared 60 gifts and 90 candles.

a) What is the greatest common factor of 60 and 90?

b) Explain why this is useful when sharing the gifts and candles equally.



7. The palace kitchen receives deliveries every 10 days and the market delivers fresh produce every 15 days.

Both deliveries happen today.

When will the next day of simultaneous deliveries occur?



### CHALLENGE

Have a go at writing your own multiplication or division word problem linked to The Winter's Tale:

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