

This is a nine-branch menorah, used during the Jewish festival of Hanukkah.

How many lines of symmetry does it have?

Sometimes a 7-branch menorah is used. How many lines of symmetry would it have with only seven branches?



At the top of this menorah is a star of David.

How many lines of symmetry does this have?



The star of David is made up of two identical shapes.

What is the name of these shapes?

What is the name of the shape of the star of David?

Look at the sequence of year numbers on the green boards.

What would you expect the number on the next board to be? The 100<sup>th</sup> board?

What would be the number on the 750<sup>th</sup> board in the sequence?



If the title on the board was Year 211 what number board would this be?

If you continued the sequence backwards what would the three numbers to the left be?

If you went backwards 16 steps from Year 3 what would the number on the board be?

How many different prime numbers can you see?

How many square numbers?

How many factors of 12?

What is the total all the numbers in the central square?



What is the total of all the numbers you can see?

What is the difference between the total of the green numbers and the brown numbers in the central square?

There are at least 6 different shapes in this rocket. How many can you find?

If shape 4 measures 48cm by 20 cm:  
What is the area of shape number 2?



If shape 4 measures 48cm by 20 cm:  
Can you estimate the height of the rocket?

If shape 4 measures 48cm by 20 cm:  
Can you calculate the area of shape number 10?

Subtract 8 from 20, 7 from 19, continue around the circle, subtracting in pairs.

What do you notice?

Can you explain?

If you walk straight across from 9 to 3, what part of the circle have you travelled?



If it is 10 pm, what time is it using the 24-hour clock?

If the length of the red line from 7 to 8 is 1.2 metres. What is the circumference of the circle?