

# Numeracy fun facts and Challenges

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## Crazy fact

- If you could fold an **A4 size** paper **25 times**, it would become thick enough to get to Merrylands train station.
- Fold it **42 times**, and it would be thick enough to get to the **moon!!!!!!!!!!!!!!**

## Challenge



The current **world record** for the most times a standard A4 paper has been **folded in half** is **12**.

**How many times can you fold an A4 paper?**

**(Try it sometime this week)**



## Crazy fact

- $2!$  (2 factorial) =  $2 \times 1 = 2$
- $3!$  (3 factorial) =  $3 \times 2 \times 1 = 6$
- $4!$  (4 factorial) =  $4 \times 3 \times 2 \times 1 = 24$
- $5!$  (5 factorial) =  $5 \times 4 \times 3 \times 2 \times 1 = 120$
- & so on.....
  
- $10!$  Seconds is **exactly** equal to 6 weeks

## Challenge



How are  $10!$  seconds equal to 6 weeks?

**Try it sometime this week...**



## Crazy fact

- Light can travel **300,000 km** in **1 second**... i.e. it can go around the earth 7.5 times in 1 second.



## Challenge

It takes **sunlight** an average of **8 minutes** and 20 seconds to travel from the **Sun** to the Earth.

**How many km would that be?**





## Crazy fact

- Take any number, and multiply it by three. Then, take the digits of that new number and add them all together. Whatever number that equals **will always be divisible by three**, no matter what number you started with.

For example:

$$3 \times 4 = 12$$

$$1 + 2 = 3$$

$$3 / 3 = 1$$

## Challenge

Try this with any 3, 4 and 5 digit numbers.....





Week 7

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Is this  
accurate!!!!



$$1 \times 8 + 1 = 9$$

$$12 \times 8 + 2 = 98$$

$$123 \times 8 + 3 = 987$$

$$1234 \times 8 + 4 = 9876$$

$$12345 \times 8 + 5 = 98765$$

$$123456 \times 8 + 6 = 987654$$

$$1234567 \times 8 + 7 = 9876543$$

$$12345678 \times 8 + 8 = 98765432$$

$$123456789 \times 8 + 9 = 987654321$$

Week 8



# Challenge

Add me to myself and multiply by 4.  
Divide me by 8 and you will have me once more.  
What number am I?



Alpha  
Centauri

Proxima

Southern Cross





## Crazy fact

- During its closest approach, in 2024, NASA's '**Parker Solar Probe**' will fly just 6 million kilometers above the sun's surface at a speed of **700,000km/h** which will make it the fastest human-made object.

## Challenge



At that speed, **how long will it take** to get to **Alpha Centauri**, the closest star system to our Sun.

Note: Alpha Centauri is 4.367 light years away. i.e.

41,343,696,000,000 kms

