

# Year 6

Friday 22<sup>nd</sup> May 2020

## Maths

Problem solving puzzles and games!



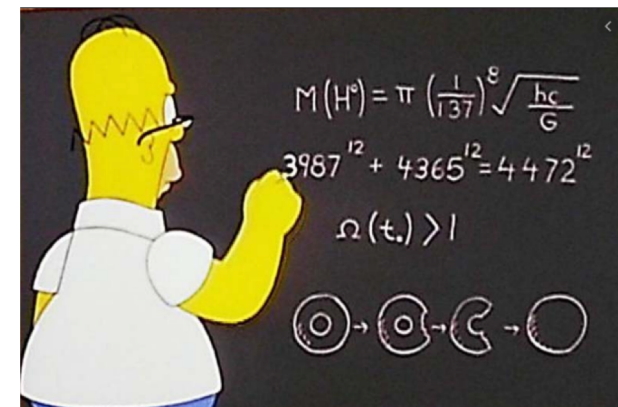
# Puzzle 1.

An old Mathematics book contained this addition sum which had been marked correct by the teacher:

The three squares in the diagram are where the paper was so bad I couldn't read them.

What were the three missing numbers?

$$\begin{array}{r} \square \ 7 \ 2 \\ 3 \ \square \ 8 \\ \hline 4 \ 7 \ \square \\ \hline \end{array}$$



# Puzzle 2.

Four people are traveling to different places on different types of transport.

Their names are: Rachel, John, Mr. Jones and Cindy.

They either went on train, car, plane or ship.

- Mr. Jones hates flying
- Cindy has to rent her vehicle
  - John gets seasick

How did they each travel?



# Puzzle 3.

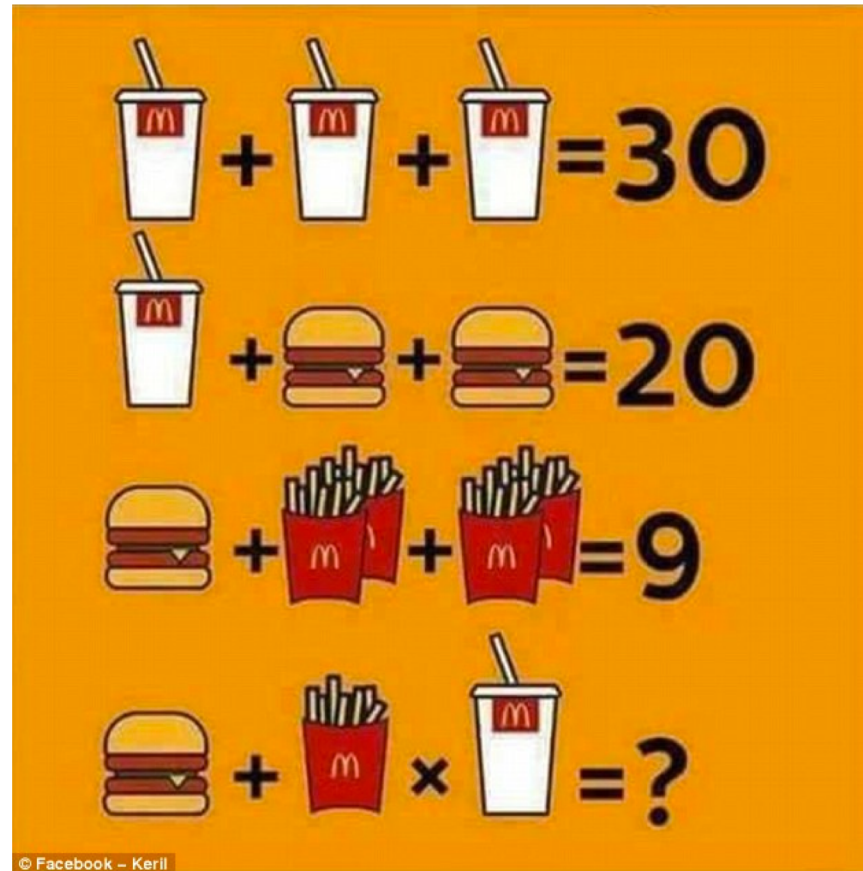
Using any letter only once, what are the largest and smallest numbers that you can write down in words?

Example: EIGHTY has six different letters.  
But not NINETY or NINETEEN as N is used twice in 90  
and three times in 19.





# Puzzle 4.



$$\text{Soft Drink} + \text{Soft Drink} + \text{Soft Drink} = 30$$

$$\text{Soft Drink} + \text{Burger} + \text{Burger} = 20$$

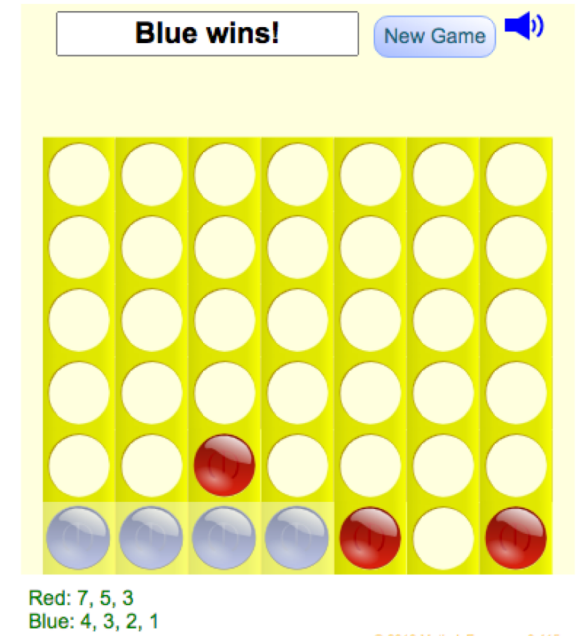
$$\text{Burger} + \text{Fries} + \text{Fries} = 9$$

$$\text{Burger} + \text{Fries} \times \text{Soft Drink} = ?$$

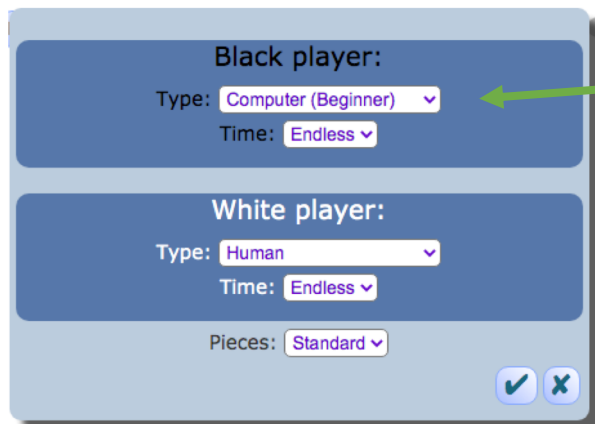


Try a puzzle or game online?

[Follow this link to Maths is Fun and try some of the puzzles and games.](#)



Choose a difficulty level and play against the computer or someone at home.



Home **Halves**

Number Range

- ▶ Halves to 10
- ▶ Halves from 5 to 15
- ▶ Halves from 10 to 20
- ▶ Halves to 50
- ▶ Halves from 50 to 100
- ▶ Halves to 10 (1 dp)

Multiples of 10

- ▶ Up to 100
- ▶ Up to 250
- ▶ Up to 500

Multiples of 5

- ▶ Up to 50
- ▶ Up to 100

Multiples of 50

- ▶ Up to 500

Topmarks

Brush up on your times tables, division facts or square numbers!

[This link for Hit the Button.](#)

Home **Division Facts**

Division up to 12 | Division up to 10

Hit the Answer

- ▶ Mixed
- ▶  $\div 2$
- ▶  $\div 3$
- ▶  $\div 4$
- ▶  $\div 5$
- ▶  $\div 6$
- ▶  $\div 7$
- ▶  $\div 8$
- ▶  $\div 9$
- ▶  $\div 10$
- ▶  $\div 11$
- ▶  $\div 12$

Hit the Question

- ▶ Mixed
- ▶  $\div 2$
- ▶  $\div 3$
- ▶  $\div 4$
- ▶  $\div 5$
- ▶  $\div 6$
- ▶  $\div 7$
- ▶  $\div 8$
- ▶  $\div 9$
- ▶  $\div 10$
- ▶  $\div 11$
- ▶  $\div 12$

Topmarks

Home **Times Tables**

Tables up to 12 | Tables up to 10

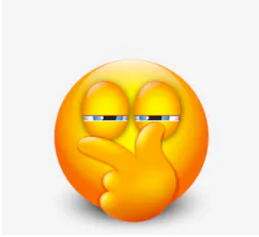
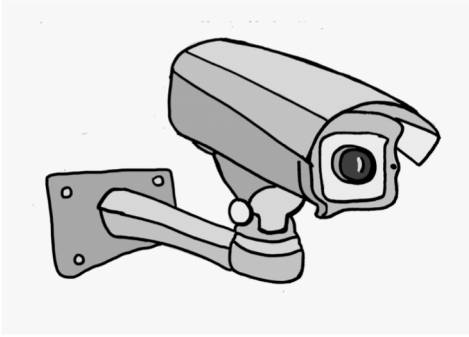
Hit the Answer

- ▶ Mixed
- ▶  $\times 2$
- ▶  $\times 3$
- ▶  $\times 4$
- ▶  $\times 5$
- ▶  $\times 6$
- ▶  $\times 7$
- ▶  $\times 8$
- ▶  $\times 9$
- ▶  $\times 10$
- ▶  $\times 11$
- ▶  $\times 12$

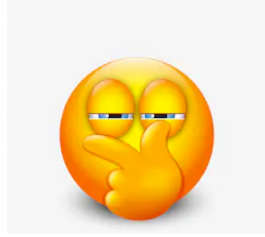
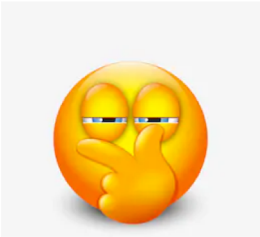
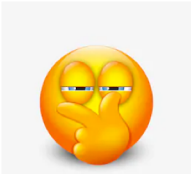
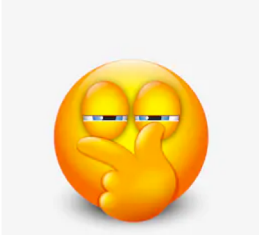
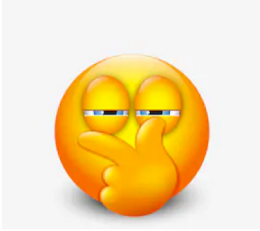
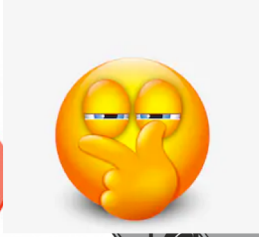
Hit the Question

- ▶ Mixed
- ▶  $\times 2$
- ▶  $\times 3$
- ▶  $\times 4$
- ▶  $\times 5$
- ▶  $\times 6$
- ▶  $\times 7$
- ▶  $\times 8$
- ▶  $\times 9$
- ▶  $\times 10$
- ▶  $\times 11$
- ▶  $\times 12$

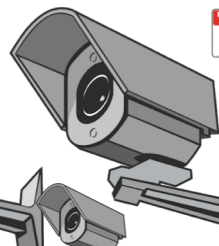
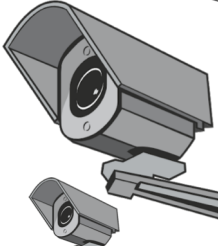
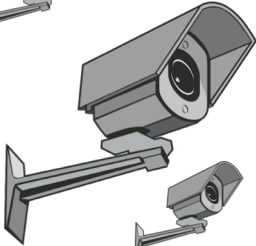
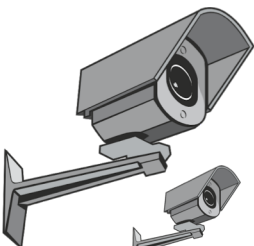
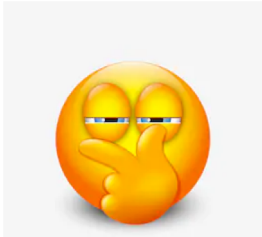
Topmarks



# STOP



The following slides contain the answers to the puzzles!



# Puzzle 1 answer.

The most obvious place to start was the 0 on the bottom  
(don't forget to carry the 1!).

Working towards the left, the next one has to be 9 to  
make the total 16 (+1 = 17) so we carry another 1.

That means the top left digit must be empty (or a zero).

$$\begin{array}{r} 1 \quad 1 \\ \boxed{0} \quad 7 \quad 2 \\ 3 \quad \boxed{9} \quad 8 \\ \hline 4 \quad 7 \quad \boxed{0} \\ \hline \end{array}$$

# Puzzle 2 answer.

Four people are traveling to different places on different types of transport.

Their names are: Rachel, John, Mr. Jones and Cindy.

They either went on train, car, plane or ship.

- Mr. Jones hates flying
- Cindy has to rent her vehicle
  - John gets seasick

How did they each travel?



## **Solution:**

There are 3 possibilities:

Cindy: car  
Mr. Jones: train  
John: plane  
Rachel: ship

Cindy: car  
Mr. Jones: ship  
John: plane  
Rachel: train

Cindy: car  
Mr. Jones: ship  
John: train  
Rachel: plane

# Puzzle 3 answer.

Using any letter only once, what are the largest and smallest numbers that you can write down in words?

Example: EIGHTY has six different letters.  
But not NINETY or NINETEEN as N is used twice in 90  
and three times in 19.

Largest: FIVE THOUSAND  
Smallest: ZERO or NOUGHT





# Puzzle 4. Answer

$\text{Drink} + \text{Drink} + \text{Drink} = 30$   
 $\text{Drink} + \text{Burger} + \text{Burger} = 20$   
 $\text{Burger} + \text{Fries} + \text{Fries} = 9$   
 $\text{Burger} + \text{Fries} \times \text{Drink} = 25$

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BODMAS!

$\text{Drink} = 10$

$\text{Burger} = 5$

$\text{Fries} = 2$