

Geography

1.

Which of these EU countries is most densely populated:
Netherlands, United Kingdom or Slovenia?

Answer: Netherlands

2.

Which country produces the most heroin: Colombia, Afghanistan or Wales?

Answer: Afghanistan

3.

Which country has more airports: Scotland or Bolivia?

Answer: Bolivia

4.

Out of China, Iceland and the UK, where has the highest life expectancy?

Answer: Iceland

5.

In which country is the Barossa Valley wine making area?

Answer: Australia

6.

What country do the Smurfs come from?

Answer: Belgium

7.

Which Turkish city has the name of a comic book character?

Answer: Batman

8.

Currently, how many time zones are there in the world?

Answer: 39

10.

Every state in what country has a place called Sabo?

Answer: Nigeria

Sport

1.

How many minutes is a rugby league match?

Answer: 80

2.

Who won gold in golf in the Olympics in 2016?

Answer: Justin Rose

3.

How many major sports teams are there in Los Angeles?

Answer: 9

4.

How many goals were scored in the final of the 1998 world cup?

Answer: 3

5.

What is the largest stadium in the world?

Answer: Azteca Stadium in Mexico city

6.

What is the name of the score worth 1 point in Australian rules football?

Answer: Behind

7.

Who is the female association football player with the most international goals?

Answer: Abby Wambach (184)

8.

Wimbledon is the oldest tennis grand slam tournament, which is the second oldest?

Answer: US open.

9.

Who is the first Chinese male athlete to win gold in an Olympic track event?

Answer: Liu Xiang

10.

In the 2011 Rugby World Cup which team did Wales play in Wellington?

Answer: South Africa

History

1.

On which island was Napoleon born?

Answer: Corsica

2.

Which city became capital of West-Germany in 1949?

Answer: Bonn

3.

Which lost city in South America was discovered in 1911 by the archaeologist Hiram Bingham?

Answer: Machu Picchu

4.

How long did Neil Armstrongs first ever walk on the moon last: 20 minutes, 2 hours or 20 hours?

Answer: 2 hours

5.

The Canadian Captain Arthur 'Roy' Brown is credited with bringing which man down?

Answer: The Red Baron

6.

Which Apollo 11 astronaut did not set foot on the moon?

Answer: Michael Collins

7.

What was the capital city of Portugal between the years 1808 and 1821?

Answer: Rio de Janeiro

8.

Alan Shepard was the first man to do what?

Answer: Hit a golf ball on the moon.

9.

Which company owned most of what is now called Canada in the early colonial days?

Answer: The Hudson Bay Company.

10.

In what American state did the Wright brothers make the first successful powered flight by Man?

Answer: North Carolina

Science

1.

On which hemisphere were the most dinosaur skeletons found?

Answer: Northern Hemisphere

2.

Which unit indicates the light intensity?

Answer: Candela

3.

What is the term for a positive electrode?

Answer: Anode

4.

What does a sphygmomanometer measure?

Answer: The blood pressure

5.

Thought to be due to a lack of sunlight in winter, what does the acronym SAD stand for?

Answer: Seasonal Affective Disorder

6.

In which part of the body are double, tented, radial or Ulnar loops, arches and Whorls found?

Answer: Fingers or Thumbs

7.

What is the fastest animal on two legs?

Answer: Ostrich

8.

How many months is the average gestation period of an elephant?

Answer: 22 months.

9.

Of what is 'silvics' the study?

Answer: Trees and their environment.

10.

In which country was the physicist Marie Currie born?

Answer: Poland

2017

1.

Who won the 2017 FA Cup Final?

Answer: Arsenal

2.

Which city was Britain's 'City of Culture' for 2017?

Answer: Hull

3.

On what date was Donald Trump sworn in as president of the United States of America?

Answer: January 20th 2017

4.

Who won the Super Bowl in 2017?

Answer: The New England Patriots

5.

What did SpaceX do for the first time in 2017?

Answer: first reflight of an orbital class rocket

6.

In 2017, Netflix released a new Star Trek series: how many Star Trek series have their been?

Answer: 6 (Original, Next Gen, DS9, Voyager, Enterprise, Discovery)

7.

What did the Australian Bureau of Statistics release on the 15th of November 2017?

Answer: Australian Marriage Law Postal Survey (61% Yes)

8.

What was the name of the winner of Eurovision 2017?

Answer: Salvador Sobral

9.

What is the name of the TV show Prince Harry's fiancée starred in?

Answer: Suits

10.

Which island of the British Commonwealth was most heavily damaged during Hurricane Maria?

Answer: Dominica

General Knowledge

1.

Which country did Ceaucescau rule from 1965-1989?

Answer: Romania

2.

In American football what is the scoring area of the field called?

Answer: End zone

3.

If you suffer from 'gymnophobia', what are you most afraid of?

Answer: Nudity

4.

Into which sea does the Nile flow?

Answer: Mediterranean

5.

Afrikaans was developed from which European language?

Answer: Dutch

6.

One and a half litres of champagne is known as a what?

Answer: Magnum

7.

Where was Marc Cohn walking when he put on his blue suede shoes?

Answer: Memphis

8.

What is the name of the sequel to the film and book “Twilight’?

Answer: New moon

9.

What is Samuel L. Jackson's middle name?

Answer: Leroy

10.

Out of the 3 Grand Tours (cycling race) which one is the oldest?

Answer: France

1.

Answer: Pak choi

2.

Answer: Passion fruit

3.

Answer: Jackfruit

4.

Answer: Loquat

5.

Answer: Ugli fruit

6.

Answer: Starfruit/Carambola

7.

Answer: Kumquat

8.

Answer: Atemoya

9.

Answer: Pawpaw

10.

Answer: Mulberries

1.

Answer: Paul McCartney

2.

Answer: Paul Pogba

3.

Answer: Paul Rudd

4.

Answer: Paul Simon

5.

Answer: Paul McGann

6.

Answer: Paul O'Grady

7.

Answer: Paul Weller

8.

Answer: Paul Walker

9.

Answer: Paul Newman

10.

Answer: Paul Hollywood

List the name of the programming language.

1.

Answer: R

```
cat("Hello world\n")
```

2.

Answer: Rust

```
fn main() {  
    println!("Hello, world!");  
}
```

3.

Answer: css

```
body:before {  
    content: "Hello World";  
}
```

4.

Answer: Python 2

```
print "Hello World"
```

5.

Answer: Brainf***

```
+++++++[>+++++>+++++++>+++<<<-]>+>+.+++++  
..+++>+>.<<+++++++>+.+++.----.---->+.
```

6.

Answer: COBOL

```
*****  
IDENTIFICATION DIVISION.  
PROGRAM-ID. HELLO.  
ENVIRONMENT DIVISION.  
DATA DIVISION.  
PROCEDURE DIVISION.  
MAIN SECTION.  
DISPLAY "Hello World!"  
STOP RUN.  
*****
```

7.

Answer: VBA for Excel

```
Private Sub Workbook_Open()  
    MsgBox "Hello world!"  
End Sub
```

8.

Answer: SAS

```
* Writes as output title;
TITLE "Hello World!";
* writes to the log;
data _null_;
    PUT "Hello world!";
run;
```

9.

Answer: SPSS

```
TITLE 'Hello World'.
```

10.

Answer: C++

```
#include <iostream>
using namespace std;

int main()
{
    cout << "Hello, World!";
    return 0;
}
```

Solve the following mathematical problems.

Obtain:

Answer: $\frac{e^x}{2} \sin(x) + \frac{e^x}{2} \cos(x)$

$$\int e^x \cos(x)$$

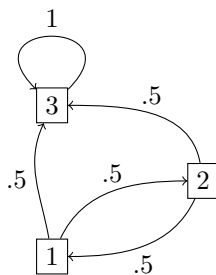
Obtain:

Answer: 2

$$\lim_{x \rightarrow 1} \frac{x^4 - 1}{x^2 - 1}$$

What is the long run stationary distribution of the following discrete time Markov chain:

Answer: $(0, 0, 1)$



Minimize: $4x + 12y$
subject to:

Answer: $(x, y) = \left(\frac{5}{11}, \frac{3}{11}\right)$

$$\begin{aligned} x &\geq 0 \\ y &\geq 0 \\ 5x - y &\geq 2 \\ x + 2y &\leq 1 \end{aligned}$$

Obtain the mixed Nash equilibria for the following game:

Answer: $\left(\left(\frac{2}{5}, \frac{3}{5}\right), \left(\frac{1}{2}, \frac{1}{2}\right)\right)$

$$\begin{pmatrix} 5, 6 & 1, 0 \\ 0, 1 & 6, 5 \end{pmatrix}$$