

Questions

We've found that recent successful applications have scored more than 7 on this self-assessment within around 20 minutes.

If you achieve this or more and enjoy the test then we'd really encourage you to continue with your application. This is a good indication that you'll pass the next stage of the process. If you honestly scored less than this, then it's unlikely you'll pass the next stage.

Question 1

B	D	V	X	P	R
<input type="checkbox"/> G		<input type="checkbox"/> A		<input type="checkbox"/> U	
K	P	E	J	Y	?

What is ?

Question 2

Here are some entries from the Phoenix language dictionary, along with their English translations.

dulsneeb (*adj.*) – underground

könersneeb (*adj.*) – under pressure

könerdivast (*n.*) – water pressure

Based on the above, which of the below is most likely to mean 'wet ground'?

- a) *divastsneeb*
- b) *könersdul*
- c) *dulsvast*

Question 3

John Conway's "Game of Life" is a simple simulation of population size changes over time. It is played in a grid of cells, where each cell may be alive (represented by black) or dead (represented by white). An example grid is given below.

						■			
	■	■							
	■	■							
						■			
							■	■	
							■	■	
							■		

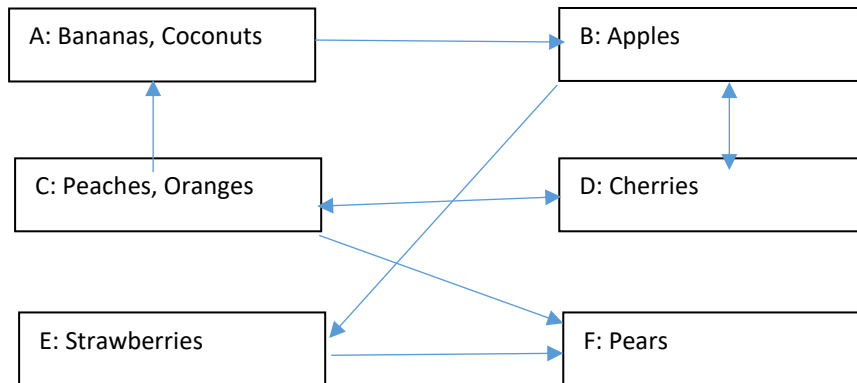
Each turn, every cell is checked to see whether it should change state or not according to the following rules:

- Alive cells with 2 or 3 alive neighbours on this turn (including diagonals) are alive on the next turn
- Dead cells with 3 alive neighbours on this turn (including diagonals) become alive on the next turn
- All other cells are dead on the next turn (either due to isolation, or overcrowding)

How many cells are alive on the above board after 1 million turns?

Question 4

You are a fruit vendor visiting a chain of islands and want to purchase supplies of **bananas**, **cherries** and **pears**. The map of available ferry routes and fruit suppliers is shown below. If you can start by flying to any island, but only travel by ferry between islands, how many of the islands can you **avoid** visiting?



- a) 0
- b) 1
- c) 2
- d) 3

Question 5

31 games are in a knock out tennis tournament (where the loser of a game is out). How many players are there?

Question 6

You have a broken clock. Every hour, it actually moves forward 96 minutes. However, exactly one hour ago it stopped, showing the time to be 8:24am. You know that it showed the right time at 02:00am. What time is it now?

Question 7

If you wish to keep just one of these six New Year resolutions, which should it be?

1. This year I will break only one of these resolutions.
2. This year I will break just two of these resolutions.
3. This year I will break just three of these resolutions.
4. This year I will break just four of these resolutions.
5. This year I will break just five of these resolutions.
6. This year I will break all six of these resolutions.

Question 8

There are 3 white marbles and 1 black marble in a bag.

You take one marble at a time out of the bag and do not put it back in.

What is the chance that you take out all of the white marbles before you take out the black marble?

- a. $1/2$
- b. $1/3$
- c. $1/4$
- d. $1/5$

Question 9

I have a 3 digit number. Work it out from the following facts:

1. 406 – one digit is correct and in the wrong place
2. 921 – one digit is correct and in the wrong place
3. 907 – one digit is correct and in the correct place
4. 769 – two digits are correct but both are in the wrong place
5. 540 – all digits are wrong

Question 10

What are the next two letters in the following series and why?

W A T N T L I T F S _ _