Game On

Think
What is this person playing?

Respond
Many computer games have a plot. Write a script for a scene from your favourite game.

Solve
A tablet computer is unlocked by swiping between nine points on a three-by-three grid. If a password uses all nine dots once, how many different combinations can you come up with?

Challenge: How many possible passwords (permutations) are there?

Reimagine
Design a new controller for a games console. What cool features will you include that will make people want it?

Discuss
Are e-sports real sports? How would you define a sport? Does it have to involve physical activity?

Discover
Fact: The first commercially successful computer game was Pong - a two-dimensional table tennis game.
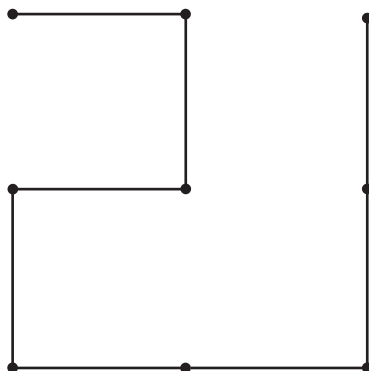
Question: Were there any earlier computer games? How did you play them?

Game On Answers **Answers**

How many different combinations can you come up with?

Accept any solution that uses all of the nine dots once. For example:

How many possible passwords (permutations) are there?

There are nine choices for where the first dot can be. As it is not possible to use a dot more than once, there are only eight choices for where the next dot can be:

$9 \times 8 = 72$

Therefore, there are 72 combinations for where the first two dots in the password could be. There are seven dots to choose from in the next stage in the sequence:

$9 \times 8 \times 7...$

and so on until there are no more dots remaining:

$9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 362\ 880$ password combinations