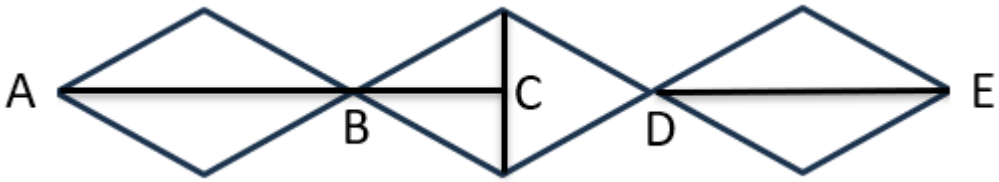
Gordon Burgin's Puzzles

June 2025 solution

Puzzle One

How many ways or routes are there traveling from A to E which do not go through either of points B, C, or D more than once per way/route?



Solution: 54 different ways/ routes
There are 3 different ways/routes to get from A to B, 6 ways/paths to get from B to D and 3 ways from D to E. So the total number of different ways/routes from A to E is equal to 3 x 6 x 3 = 54.

Puzzle Two

A professor gives a set of three difficult maths questions to the most brilliant students at his university. To his surprise, there are different answers by all three of the students. Their answers were as follows:

Student **X**	Student **Y**	Student **Z**
Q1. Two	Q1. Two	Q1. One
Q2. Six	Q2. Three	Q2. Three
Q3. Two	Q3. Infinity	Q3. Two

With these answers and knowing that each of the students has given one answer wrong, can you find out the real answers to the three questions?

Solution:

Knowing that each student gave one answer wrong, this means that each one of them gave two answers right.

Let us assume that Student **X** gave a wrong answer to the first question. This will mean that Student **Y** also gave a wrong answer for the first. This will conclude that the rest of the two answers given by them are correct. However, the answers are different and thus it is not possible.

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Then both Student **X** and Student **Y** must be right with the first question and the answer to the first question is two.

If you keep applying the same logic to questions 2 and 3, you will conclude that the following answers are the correct answers:

Q1. Two
Q2. Three
Q3. Two

Puzzle Three

In the 3x3 matrix below and using numbers 1 through 9 (only once), solve the puzzle considering the following clues:

1. The sum of each of the three rows is the same value.
2. The sum of each of the three columns is the same value.
3. The sum of each of the two diagonals is the same value.

A	B	C
D	E	F
G	H	I

Solution:

8	1	6
3	5	7
4	9	2

Note: This puzzle is one of a group called 'Magic Squares' by being able to sum 15 in all directions - rows, columns and diagonals.

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