

What's Your Angle

Level B

Maggie made a drawing of an octagon (eight-sided figure) and drew all the diagonals. How many diagonals did she draw?

Maggie made a table showing the number of diagonals you can draw compared to the number of sides of the figure. What did Maggie's table look like?

Explain what patterns you see.

Lex, Maggie's friend, says that he drew a figure and there were 16 diagonals, but Lex is wrong. Explain why he is wrong.

Using Maggie's method, can you predict how many diagonals there are in a dodecagon (twelve-sided) shape? Explain how you know.

Write an expression in terms of n , the number of sides of a polygon, that gives the number of diagonals possible.

