

Maths
Year 4

Independent Task

To solve problems based on quadrilaterals and triangles

Mr Critchlow



OAK
NATIONAL
ACADEMY

To Start

Can you complete the number grid by putting the numbers into the correct places. It's like a crossword but with numbers not letters.

				4	2	0	3	5	8
7									
2									
5									
6						6	5	9	
9									
2									

3 DIGITS

143
267
468
~~659~~
748
946

4 DIGITS

2619
3580
6034
7129
7519
9256

5 DIGITS

19076
20537
32706
41037
41853
58321
84192

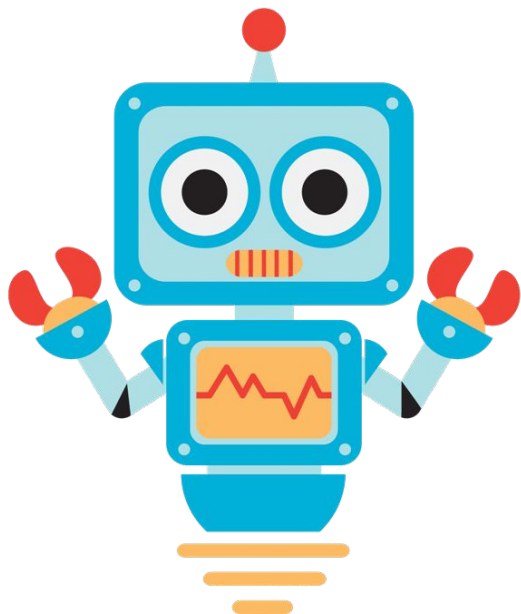
6 DIGITS

210496
420358
725692

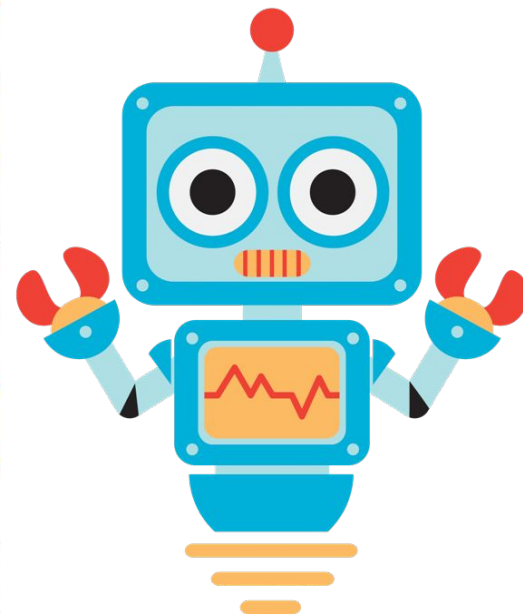


To Start

Answers




2	0	5	3	7		6		7	
6		8		4	2	0	3	5	8
1	4	3		8		3		1	
9		2			8	4	1	9	2
	7	1	2	9			9		6
	2		1		4	1	0	3	7
3	5	8	0		1		7		
	6		4	6	8		6	5	9
	9		9		5				4
9	2	5	6		3	2	7	0	6



Shape Properties

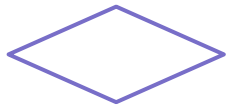
Can you complete the properties of these 2-D shapes? An example has been done for you.

Draw it	Name it	Parallel sides	Features of sides	Angles/ Vertices
	square	2 sets of parallel sides	All 4 sides are equal	4 equal angles right angles
	oblong			
	trapezium			
			All 3 sides are equal	



Shape Properties

Can you complete the properties of these 2-D shapes? An example has been done for you.

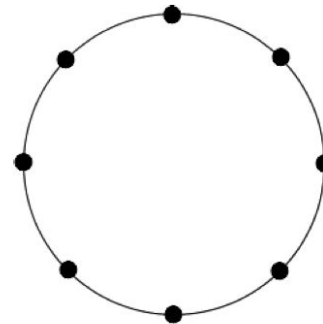
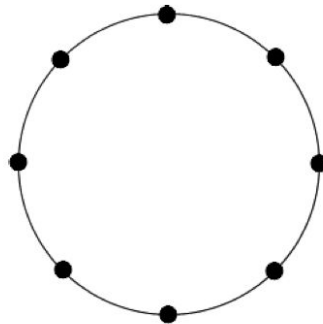
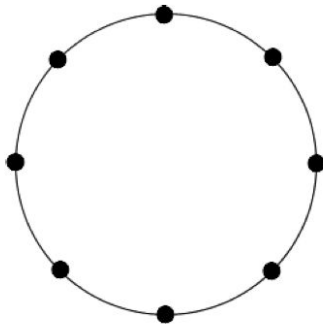
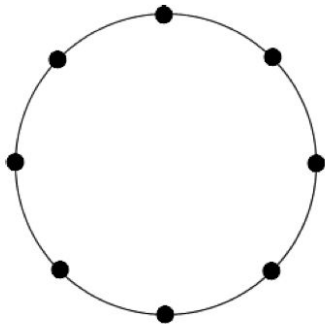
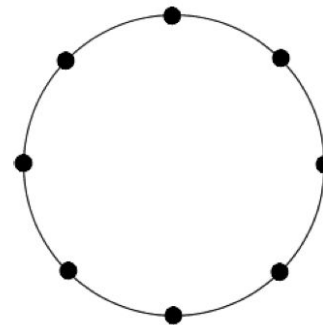
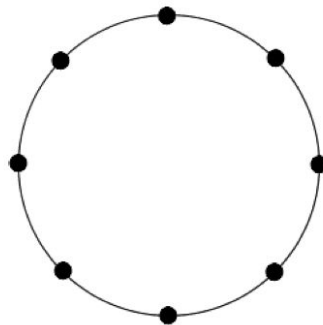
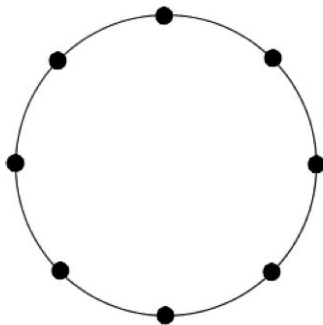
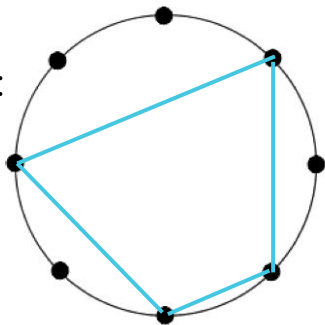
Draw it	Name it	Parallel sides	Features of sides	Angles/ Vertices
	Scalene triangle			
	parallelogram			
				
		none	2 of 3 sides are equal	



Quadrilateral investigation

How many different quadrilaterals can you make by joining 4 dots on the outside of a circle. When you create the shape, can you name it? Use straight lines only.

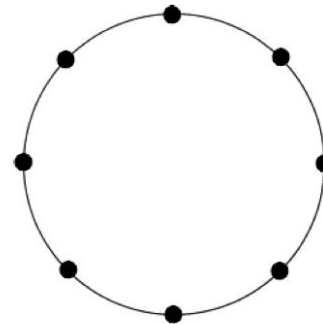
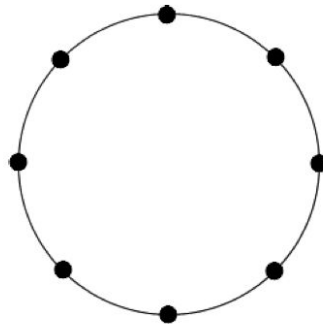
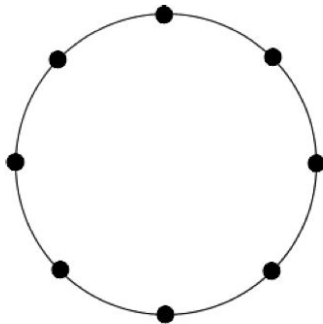
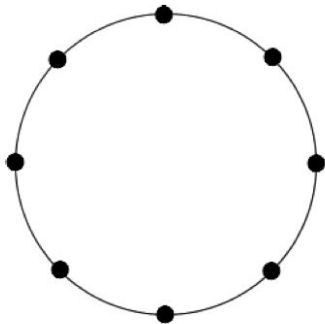
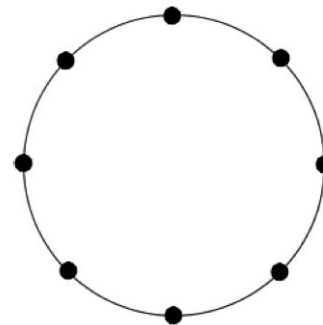
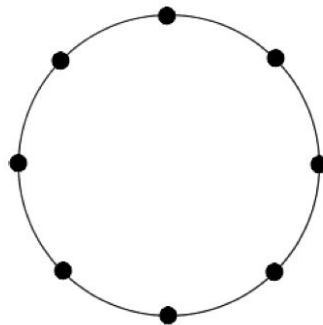
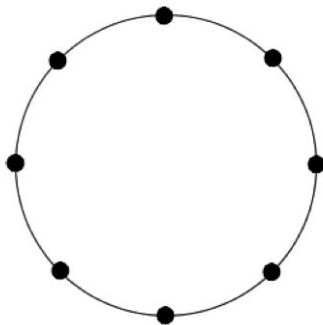
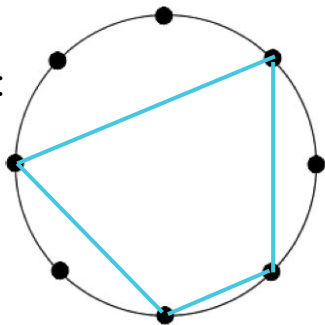
EG:



Quadrilateral investigation

How many different quadrilaterals can you make by joining 4 dots on the outside of a circle. When you create the shape, can you name it? Use straight lines only.

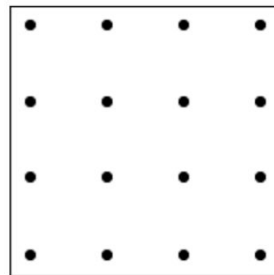
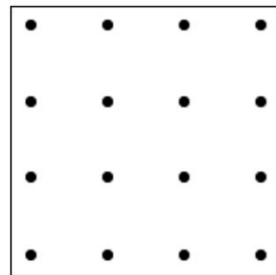
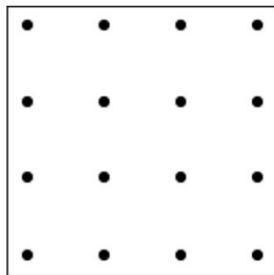
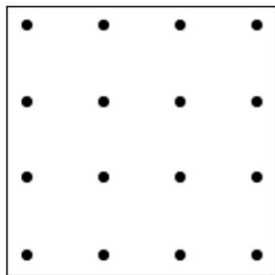
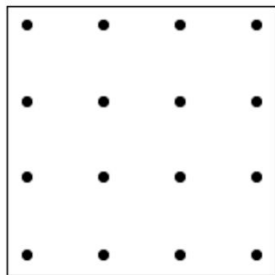
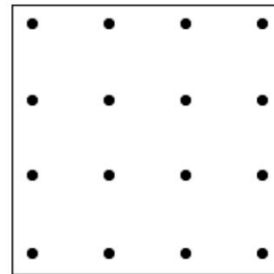
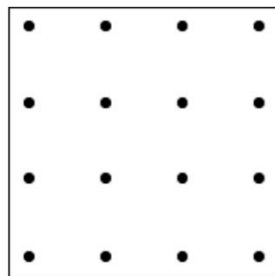
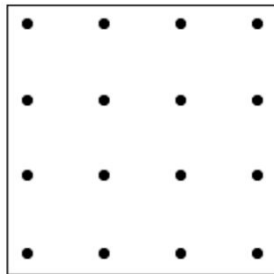
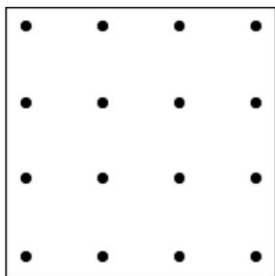
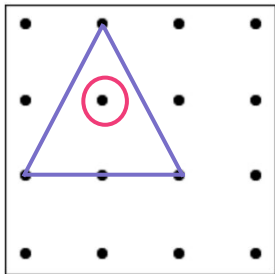
EG:



Triangles investigation

How many different triangles can you make that have a single dot in the middle of them, using the dotted grids below?

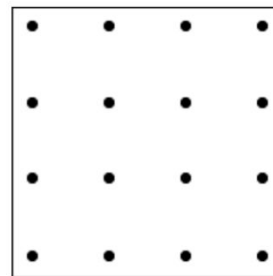
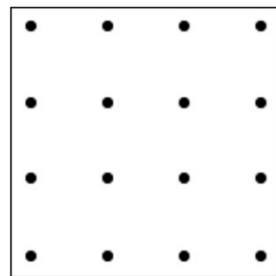
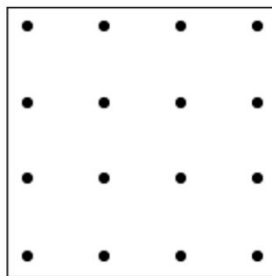
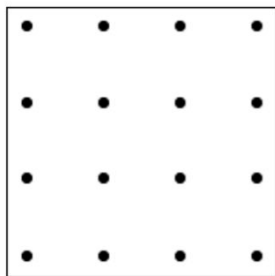
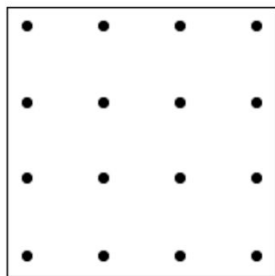
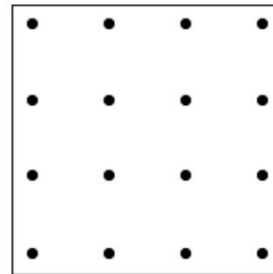
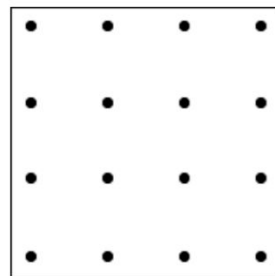
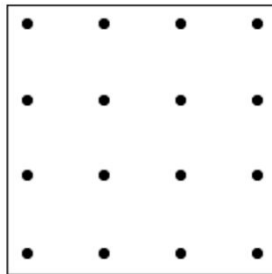
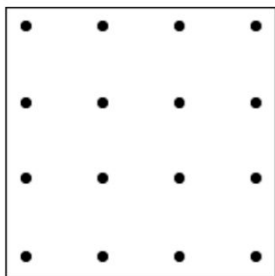
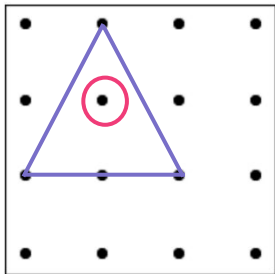
EG:



Triangles investigation

How many different triangles can you make that have a single dot in the middle of them, using the dotted grids below?

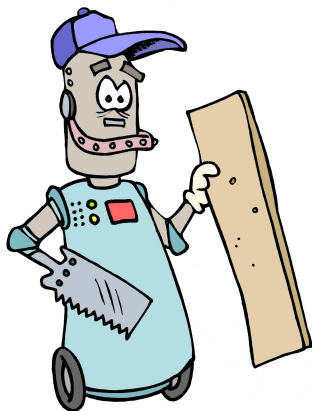
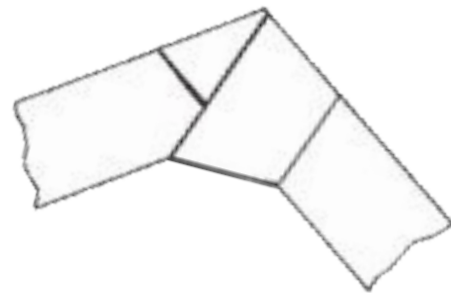
EG:



Challenge

Exploring shapes by folding

Take a piece of rectangular paper (A4 is best).
How small can you make it by folding?
How many different sorts of triangle can you produce by folding?
Can you produce four identical triangles?



What is the quickest way to produce a square?
Can you make other quadrilaterals by folding?

