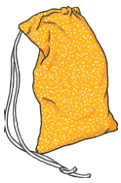
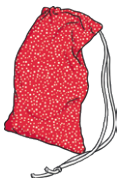
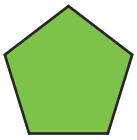
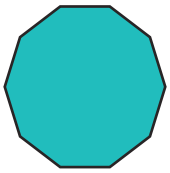
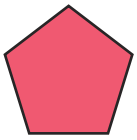
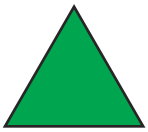
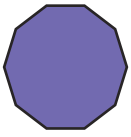
Multiplication and Division with 2D Shapes

I can solve a 2D shapes problem using multiplication and division.

Can you work out how many vertices are inside each bag? Write the calculation to show how you worked out the answer.

 2 squares	 4 pentagons	 7 decagons
This bag contains 2 squares.  _____ There are ____ vertices.	This bag contains 4 pentagons.  _____ There are ____ vertices.	This bag contains 7 decagons.  _____ There are ____ vertices.

Can you work out how many shapes are inside each bag? Write the calculation to show how you worked out the answer. One has been done for you.

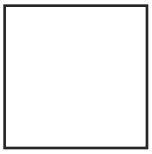
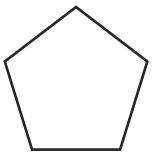
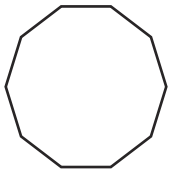
 15 vertices	 21 vertices	 12 vertices	 80 vertices
This bag contains 3 pentagons. 	How many triangles are in this bag? ____ 	How many rectangles are in this bag? ____ 	How many decagons are in this bag? ____ 
15 ÷ 5 = 3			

Charlie has a bag containing 24 vertices? What set of shapes could it contain?

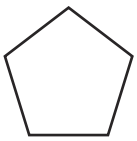
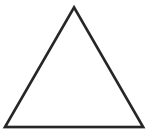
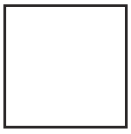
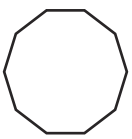
Multiplication and Division with 2D Shapes **Answers**

I can solve a 2D shapes problem using multiplication and division.

Can you work out how many vertices are inside each bag? Write the calculation to show how you worked out the answer.

 2 squares	 4 pentagons	 7 decagons
This bag contains 2 squares.  **2 × 4 = 8** There are **8** vertices.	This bag contains 4 pentagons.  **4 × 5 = 20** There are **20** vertices.	This bag contains 7 decagons.  **7 × 10 = 70** There are **70** vertices.

Can you work out how many shapes are inside each bag? Write the calculation to show how you worked out the answer. One has been done for you.

 15 vertices	 21 vertices	 12 vertices	 80 vertices
This bag contains 3 pentagons. 	How many triangles are in this bag? **7** 	How many rectangles are in this bag? **3** 	How many decagons are in this bag? **8** 
15 ÷ 5 = 3	**21 ÷ 3 = 7**	**12 ÷ 4 = 3**	**80 ÷ 10 = 8**

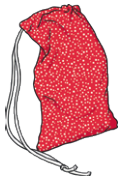
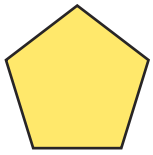
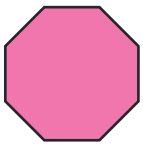
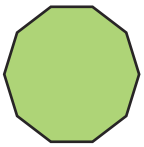
Charlie has a bag containing 24 vertices? What set of shapes could it contain?

Any set of 6 quadrilaterals, a set of 8 triangles

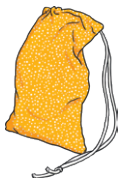
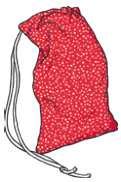
Multiplication and Division with 2D Shapes

I can solve a 2D shapes problem using multiplication and division.

Can you work out how many vertices are inside each bag? Write the calculation to show how you worked out the answer.

 3 pentagons	 3 kites	 7 octogons	 12 decagons
This bag contains 3 pentagons.  _____ There are ____ vertices.	This bag contains 3 kites.  _____ There are ____ vertices.	This bag contains 7 octagons.  _____ There are ____ vertices.	This bag contains 12 decagons.  _____ There are _____ vertices.

Can you work out how many shapes are inside each bag? Write the calculation to show how you worked out the answer. One has been done for you.

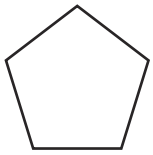
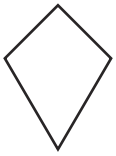
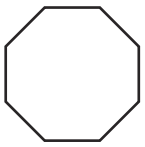
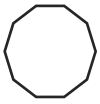
 30 vertices	 48 vertices	 40 vertices	 40 vertices
How many hexagons are in this bag? 5	How many octagons are in this bag? ____	How many octagons are in this bag? ____	How many quadrilaterals are in this bag? ____
30 ÷ 6 = 5			

Can you find another bag of shapes that would contain 40 vertices?

Multiplication and Division with 2D Shapes **Answers**

I can solve a 2D shapes problem using multiplication and division.

Can you work out how many vertices are inside each bag? Write the calculation to show how you worked out the answer.

			
3 pentagons	3 kites	7 octogons	12 decagons
This bag contains 3 pentagons.  **3 × 5 = 15** There are **15** vertices.	This bag contains 3 kites.  **3 × 4 = 12** There are **12** vertices.	This bag contains 7 octagons.  **7 × 8 = 56** There are **56** vertices.	This bag contains 12 decagons.  **12 × 10 = 120** There are **120** vertices.

Can you work out how many shapes are inside each bag? Write the calculation to show how you worked out the answer. One has been done for you.

			
30 vertices	48 vertices	40 vertices	40 vertices
How many hexagons are in this bag? 5	How many octagons are in this bag? **6**	How many octagons are in this bag? **5**	How many quadrilaterals are in this bag? **10**
30 ÷ 6 = 5	**48 ÷ 8 = 6**	**40 ÷ 8 = 5**	**40 ÷ 4 = 10**

Can you find another bag of shapes that would contain 40 vertices?

Accept any correct answer, such as 5 octagons or 4 decagons.

Multiplication and Division with 2D Shapes

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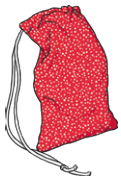
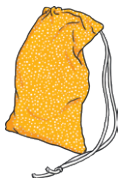
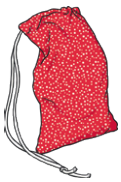
Can you work out how many vertices are inside each bag? Write the calculation to show how you worked out the answer.

			
7 nonagons	3 octagons	7 trapeziums	11 decagons
This bag contains 7 nonagons.	This bag contains ____ octagons.	This bag contains ____ trapeziums.	This bag contains ____ decagons.
There are ____ vertices.	There are ____ vertices.	There are ____ vertices	There are ____ vertices.

Can you work out how many shapes are inside each bag? Write the calculation to show how you worked out the answer. One has been done for you.

			
21 vertices	42 vertices	36 vertices	36 vertices
This bag contains 3 heptagons.	How many hexagons are in this bag? ____	How many triangles are in this bag? ____	How many nonagons are in this bag? ____
21 ÷ 3 = 7			

Can you find another bag of shapes that would contain 36 vertices?

Multiplication and Division with 2D Shapes **Answers**

I can solve a 2D shapes problem using multiplication and division.

Can you work out how many vertices are inside each bag? Write the calculation to show how you worked out the answer.

 7 nonagons	 3 octagons	 7 trapeziums	 11 decagons
This bag contains 7 nonagons. **7 × 9 = 63** There are **63** vertices.	This bag contains **3** octagons. **3 × 8 = 24** There are **24** vertices.	This bag contains **7** trapeziums. **7 × 4 = 28** There are **28** vertices	This bag contains **11** decagons. **11 × 10 = 110** There are **110** vertices.

Can you work out how many shapes are inside each bag? Write the calculation to show how you worked out the answer. One has been done for you.

 21 vertices	 42 vertices	 36 vertices	 36 vertices
This bag contains 3 heptagons.	How many hexagons are in this bag? **7**	How many triangles are in this bag? **6**	How many nonagons are in this bag? **4**
21 ÷ 3 = 7	**42 ÷ 6 = 7**	**36 ÷ 3 = 12**	**36 ÷ 9 = 4**

Can you find another bag of shapes that would contain 36 vertices?

Accept any correct answer, such as 6 hexagons or 9 quadrilaterals.