

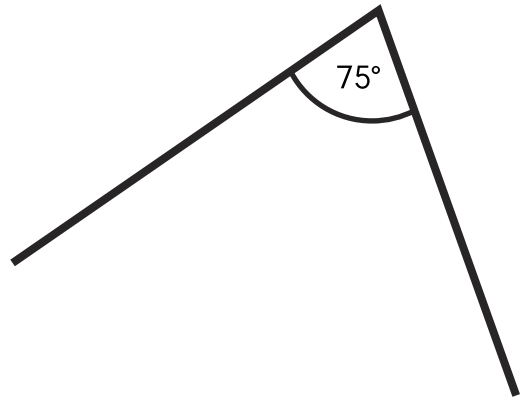


Amazing Angles **Answers**

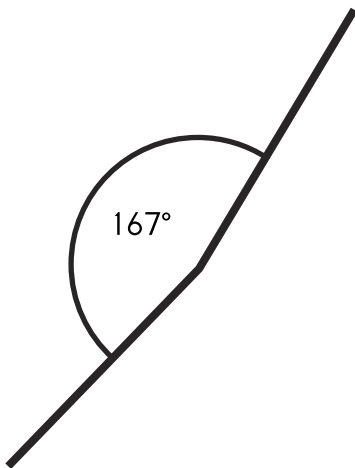
Label these angles as acute, obtuse or reflex:



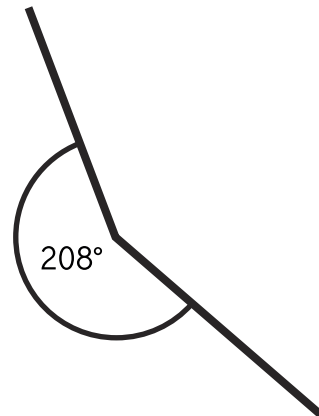
obtuse



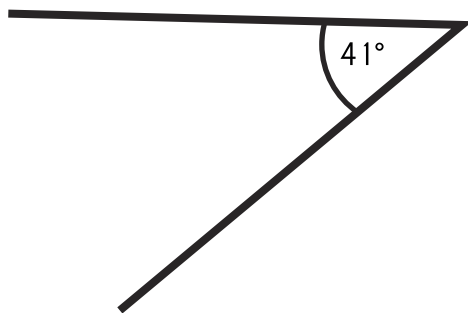
acute



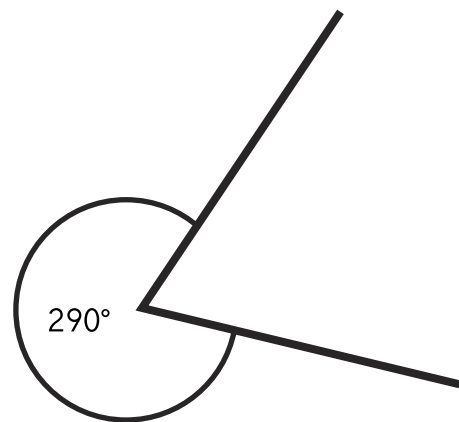
obtuse



reflex



acute



reflex



Amazing Angles Answers

Label these angles as angles around a point,
angles on a straight line or vertically opposite angles:

Around a point

On a straight line

Vertically opposite

Around a point

On a straight line

Vertically opposite

Around a point

On a straight line

Vertically opposite

Around a point

On a straight line

Vertically opposite



Amazing Angles Answers

Use your angles knowledge to solve this crossword:

Clues

Across

1. The measurement of angles. (7)
3. Used to measure angles. (10)
6. Intersecting straight lines create vertically _____ angles. (8)
8. An angle greater than 180° . (6)
9. Number of degrees in a right angle. (6)

Down

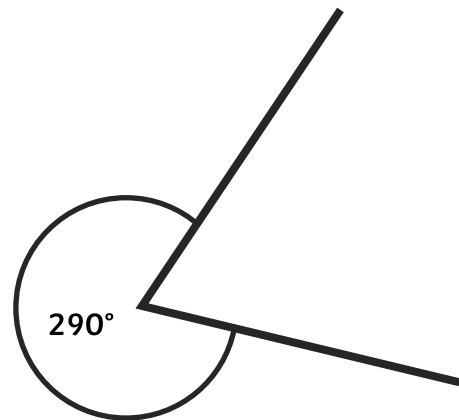
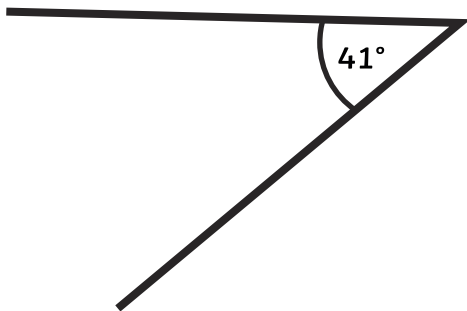
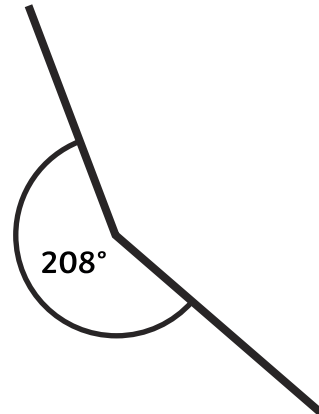
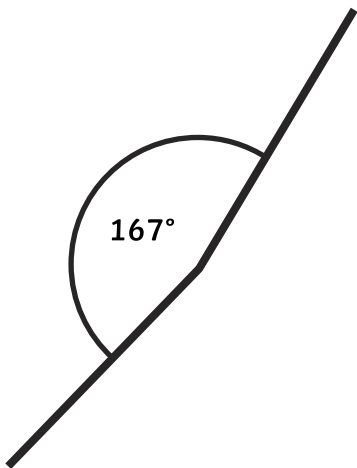
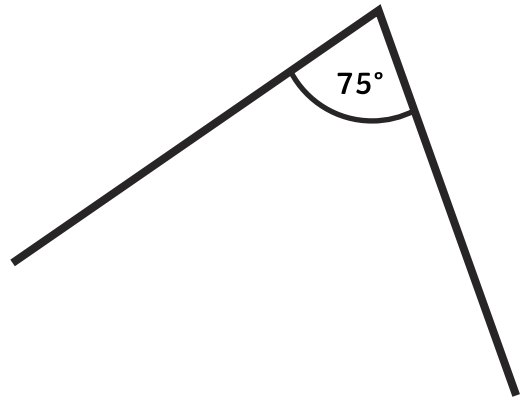
2. An angle of 180° . (8)
4. An angle between 90° and 180° . (6)
5. An angle smaller than 90° . (5)
7. Angles around a _____ total 360° . (5)

						¹ d	e	g	r	e	e	² s			
												t			
			³ p	r	⁴ o	t	r	a	c	t	o	r			
		⁵ a			b							a			
		c			t		⁶ o	⁷ p	p	o	s	i	t	e	
		u			u			o				g			
		t			s			i				h			
	⁸ r	e	f	l	e	x		⁹ n	i	n	e	t	y		
								t							



Amazing Angles

Label these angles as acute, obtuse or reflex:





Amazing Angles

Label these angles as angles around a point, angles on a straight line or vertically opposite angles:

Around a point

On a straight line

Vertically opposite

Around a point

On a straight line

Vertically opposite

Around a point

On a straight line

Vertically opposite

Around a point

On a straight line

Vertically opposite



Amazing Angles

Use your angles knowledge to solve this crossword:

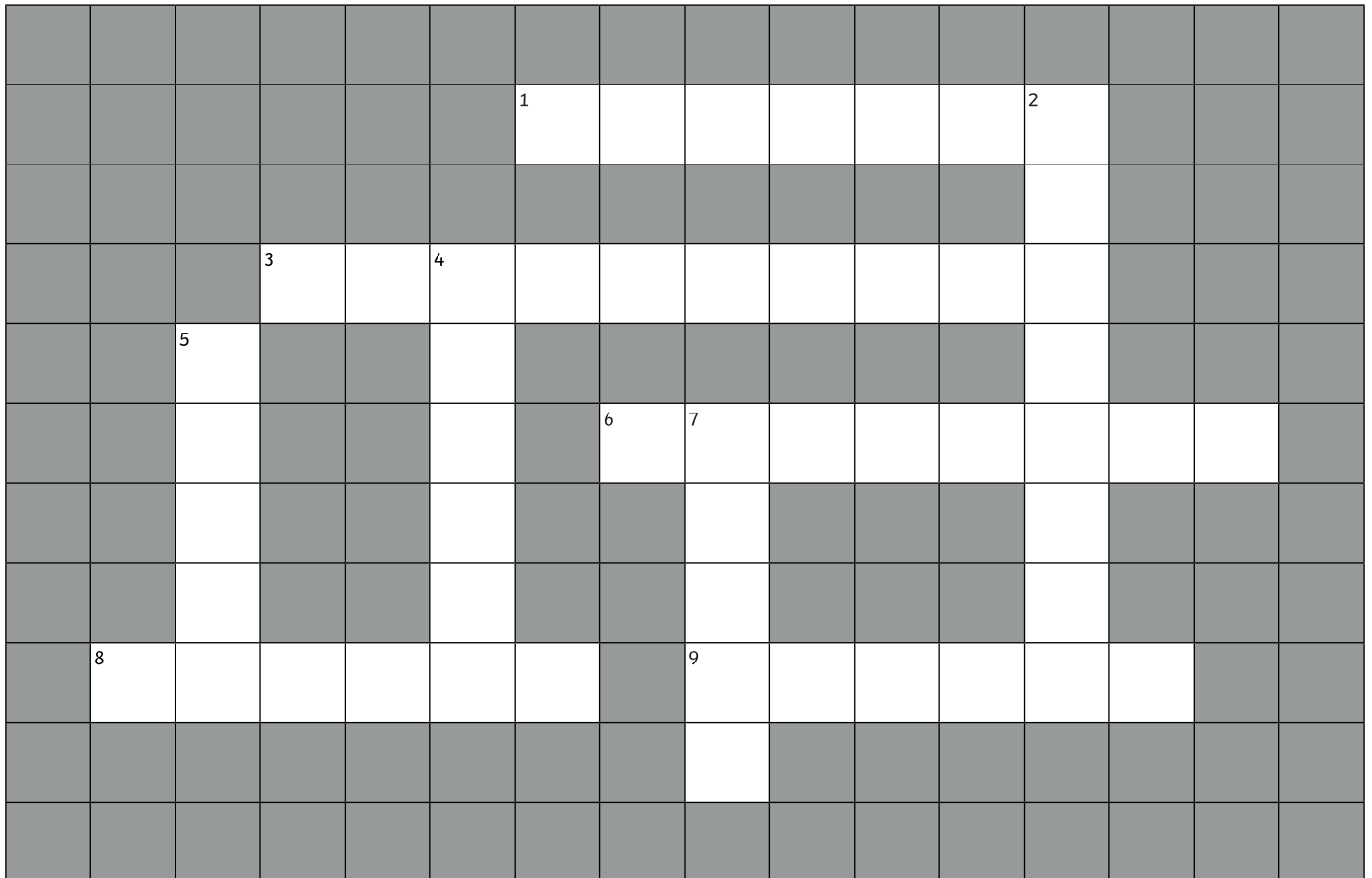
Clues

Across

1. The measurement of angles. **(7)**
3. Used to measure angles. **(10)**
6. Intersecting straight lines create vertically _____ angles. **(8)**
8. An angle greater than 180° . **(6)**
9. Number of degrees in a right angle. **(6)**

Down

2. An angle of 180° . **(8)**
4. An angle between 90° and 180° . **(6)**
5. An angle smaller than 90° . **(5)**
7. Angles around a _____ total 360° . **(5)**





Circles Answers

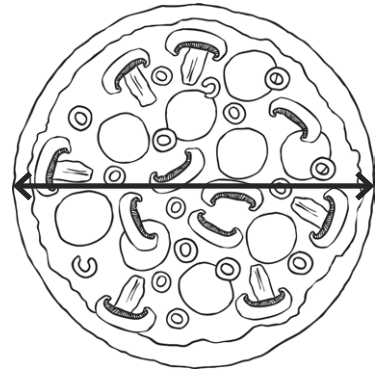
I can illustrate and name parts of circle and know that the diameter is twice the radius.



Radius = 10cm

Diameter = 20cm

Circumference = 62.8cm



Diameter = 22cm

Radius = 11cm

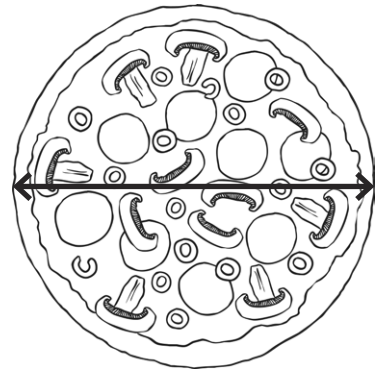
Circumference = 69.08cm



Radius = 15cm

Diameter = 30cm

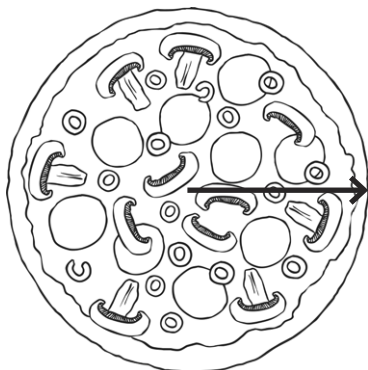
Circumference = 94.2cm



Diameter = 36cm

Radius = 18cm

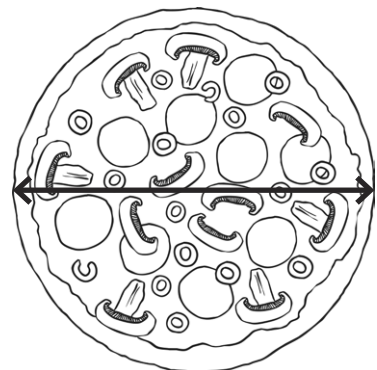
Circumference = 113.04cm



Radius = 17cm

Diameter = 34cm

Circumference = 106.76cm



Diameter = 48cm

Radius = 24cm

Circumference = 105.72cm



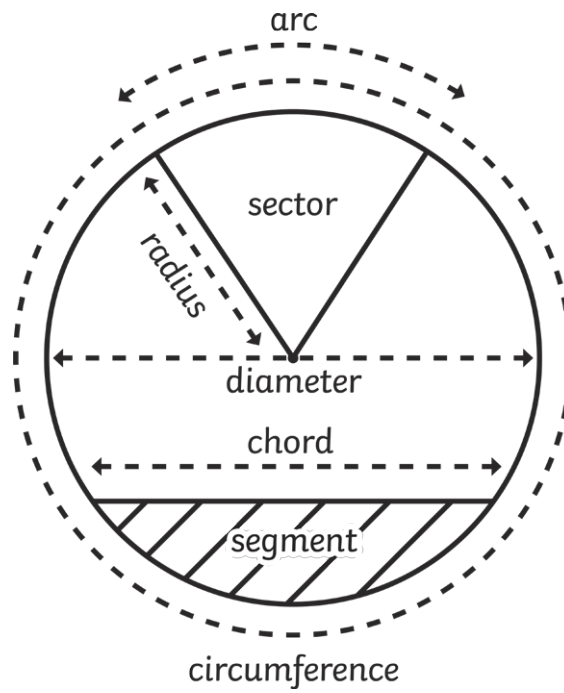
Circles

Find cylindrical objects and draw round the circular face.
Use a ruler to measure and label the radius and the diameter.



Circles

Use this 'parts of a circle diagram' to help you draw and label your own diagram.





Circles

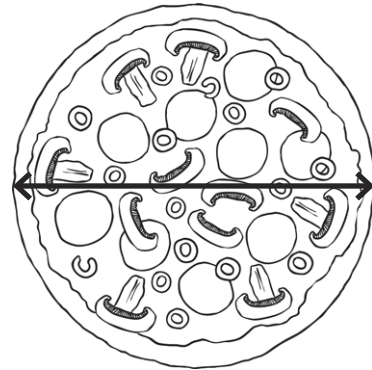
Calculate the missing radius or diameter and circumference of these pizzas.



Radius = **10cm**

Diameter = **20cm**

Circumference = $3.14 \times 20 = \mathbf{62.8cm}$



Diameter = 22cm

Radius =

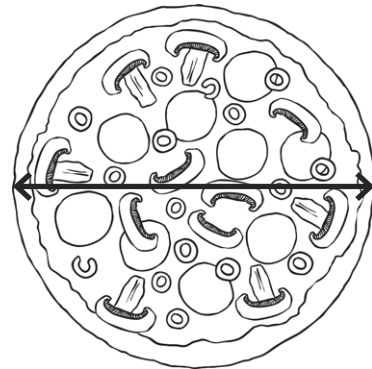
Circumference =



Radius = 15cm

Diameter =

Circumference =



Diameter = 36cm

Radius =

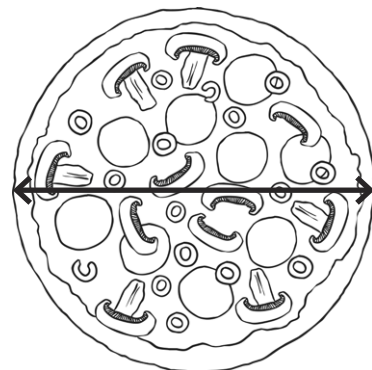
Circumference =



Radius = 17cm

Diameter =

Circumference =



Diameter = 48cm

Radius =

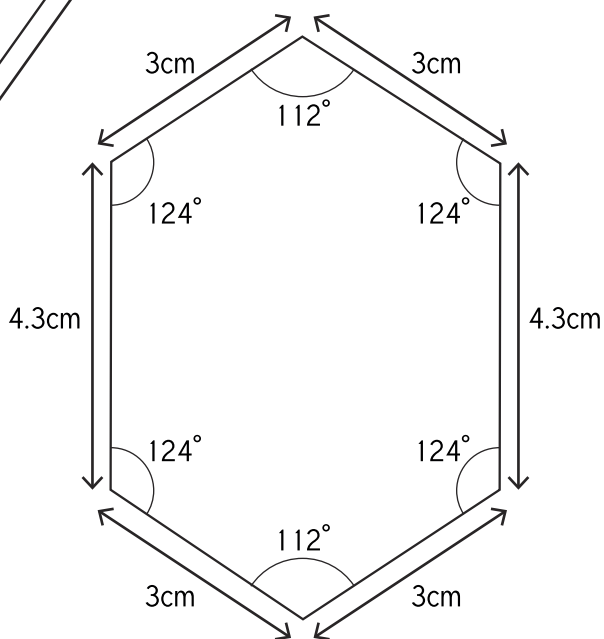
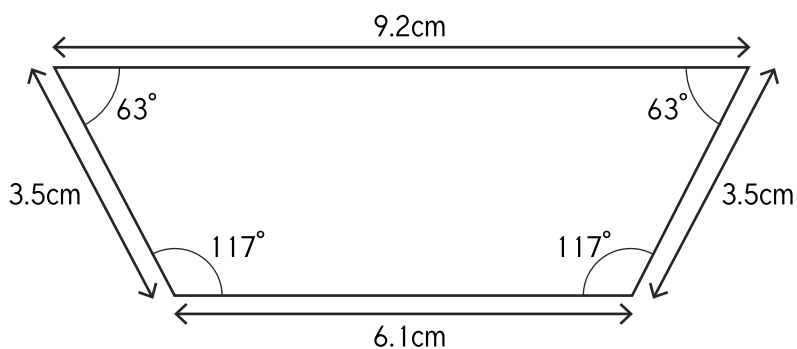
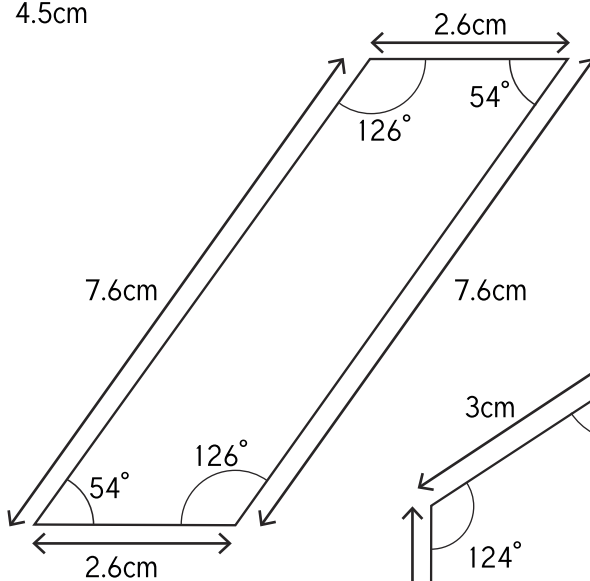
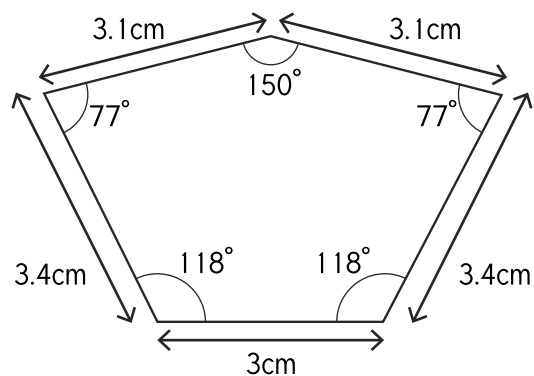
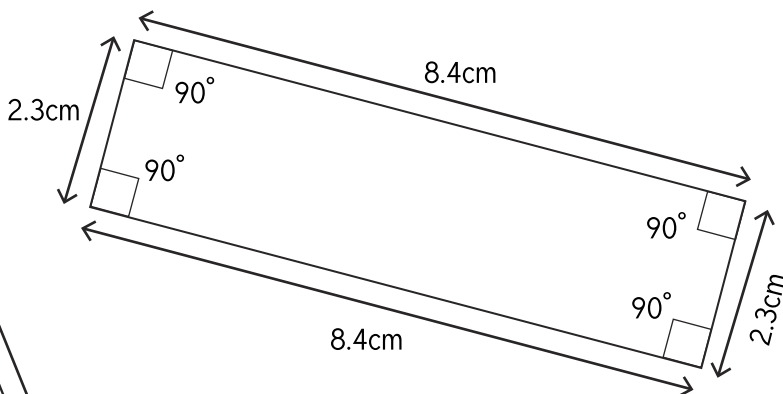
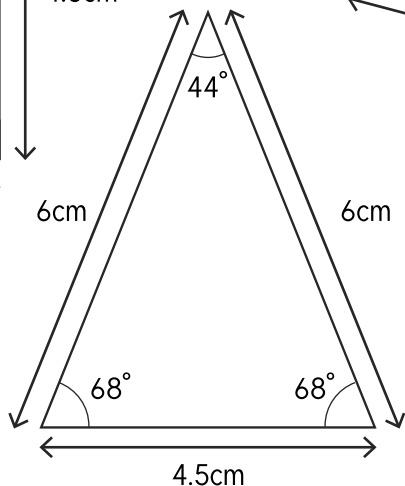
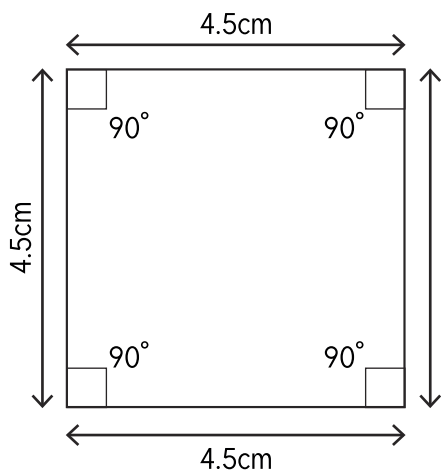
Circumference =

Hint: Use the formula πd ($3.14 \times \text{diameter}$) to work out the circumference of a circle.



2D Shape Challenge Answers

Use a ruler and protractor to measure and label the lengths and angles of these 2D shapes.

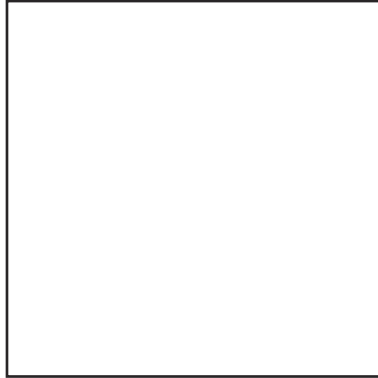




2D Shape Challenge **Answers**

Use a ruler and protractor to draw these shapes:

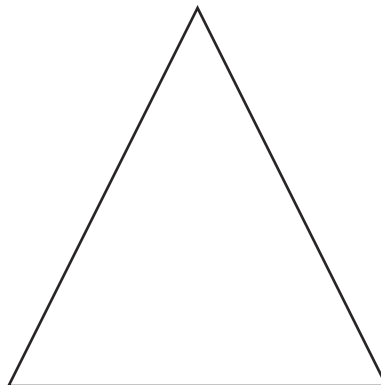
A 5cm square:



A 3.5cm x 4.5cm rectangle:



A 5cm equilateral triangle:

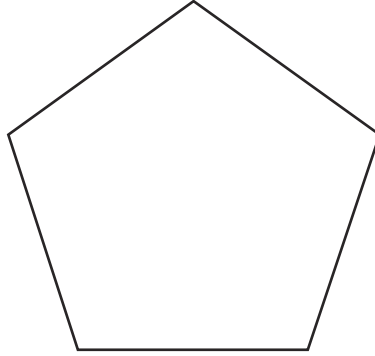




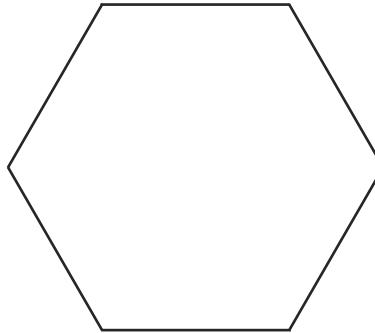
2D Shape Challenge **Answers**

Use a ruler and protractor to draw these shapes:

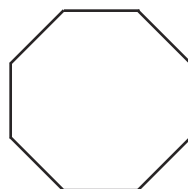
A 3cm regular pentagon with interior angles 108° :



A 2.5cm regular hexagon with interior angles 120° :



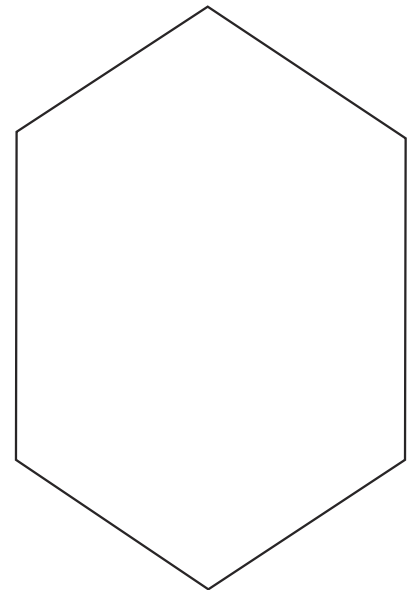
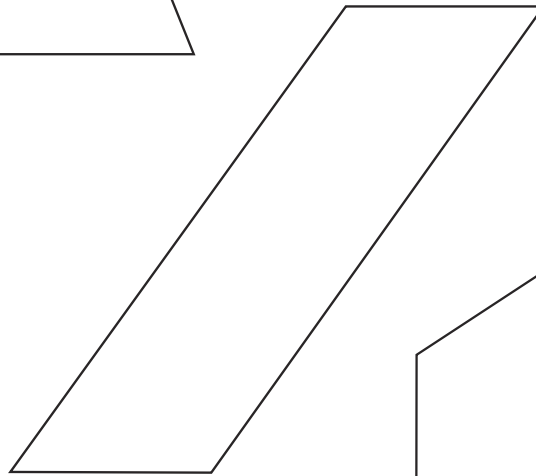
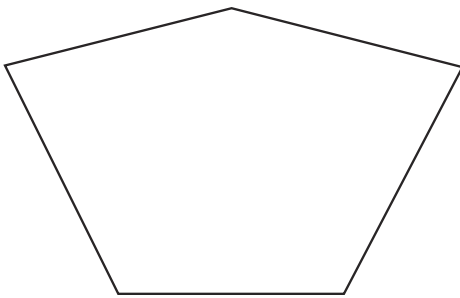
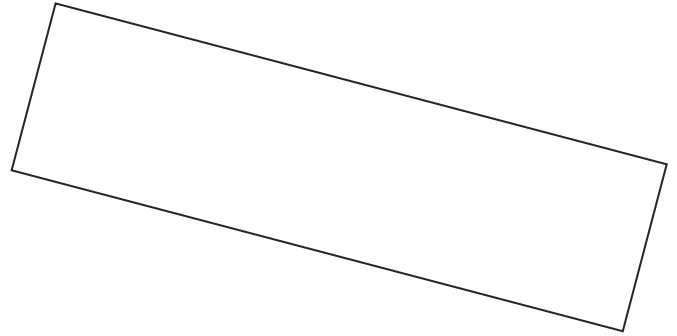
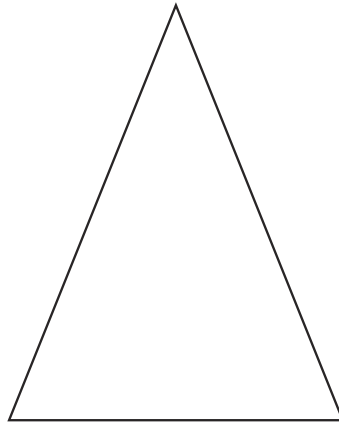
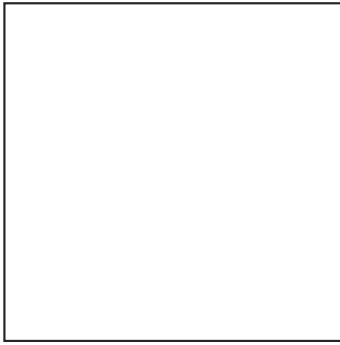
A 1cm regular octagon with interior angles 135° :





2D Shape Challenge

Use a ruler and protractor to measure and label the lengths and angles of these 2D shapes.



Choose one of the shapes and try drawing it yourself as accurately as you can.



2D Shape Challenge

Use a ruler and protractor to draw these shapes:

A 5cm square:

A 3.5cm x 4.5cm rectangle:

A 5cm equilateral triangle:



2D Shape Challenge

Use a ruler and protractor to draw these shapes:

A 3cm regular pentagon with interior angles 108° :

A 2.5cm regular hexagon with interior angles 120° :

A 1cm regular octagon with interior angles 135° :



3D Shape Challenge **Answers**

Can you unscramble the names of the 3D shapes and match them to the correct shape net?

1. Cylinder

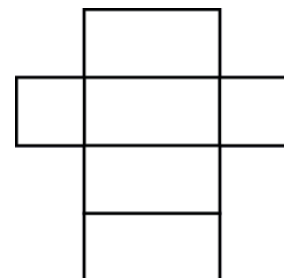
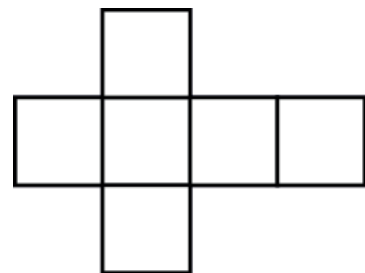
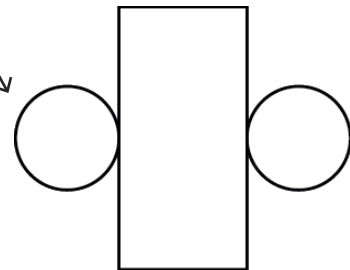
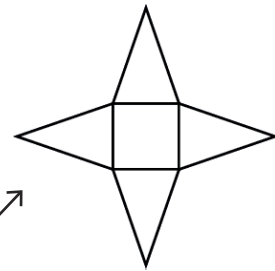
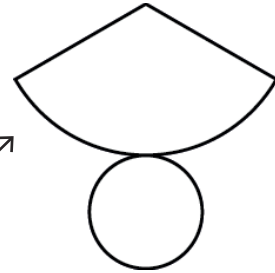
2. Cube

3. Cuboid

4. Cone

5. Pyramid

6. Prism





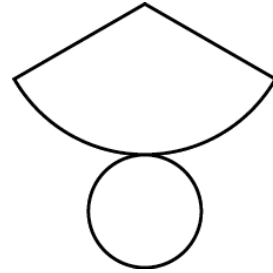
3D Shape Challenge

Can you unscramble the names of the 3D shapes and match them to the correct shape net?

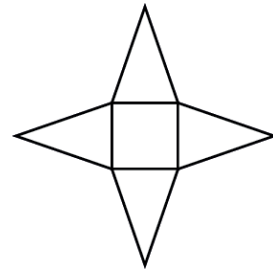
1. **iyrneldC**



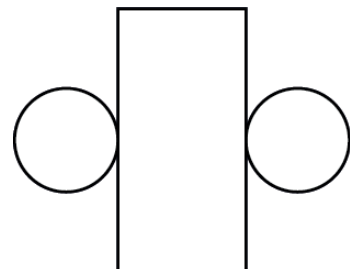
2. **bueC**



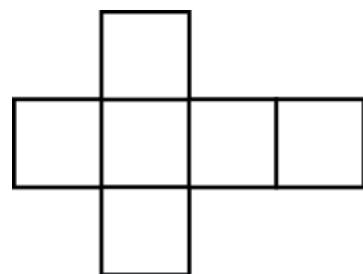
3. **boCuid**



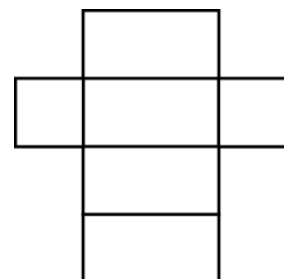
4. **enoC**



5. **ymPrida**



6. **siPmr**

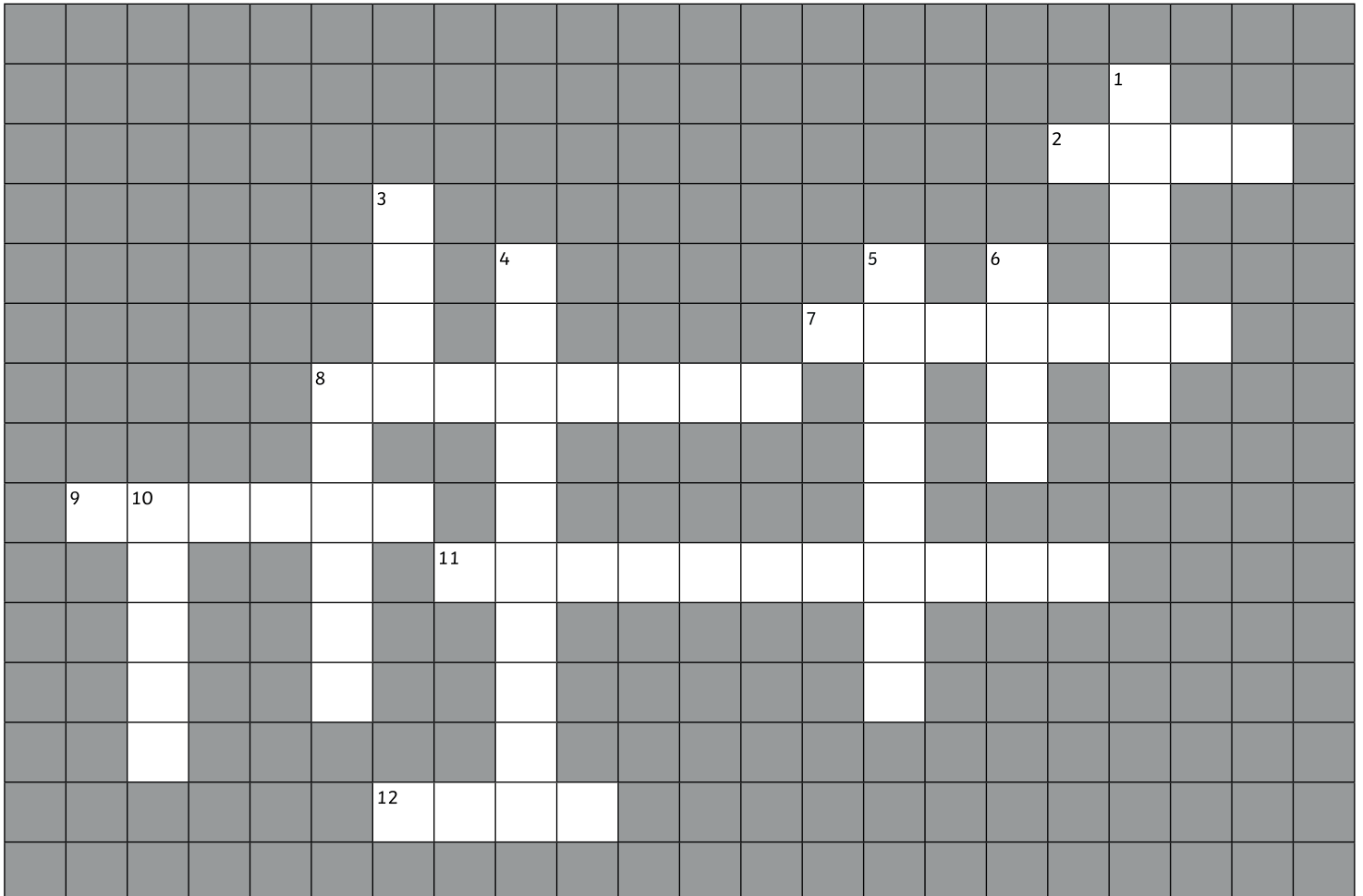




3D Shape Challenge

Clues


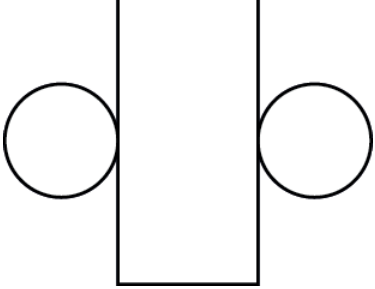
- Down**
- This shape has 6 rectangular faces. **(6)**
 - Where 2 faces meet. **(4)**
 - This shape has 8 triangular faces. **(10)**
 - This shape has 2 circular faces. **(8)**
 - The 2D surface of a 3D shape. **(4)**
 - A corner on a shape. **(6)**
 - A 3D shape where the cross section is the same all along its length. **(5)**
- Across**
- This shape has 6 square faces. **(4)**
 - This shape has a square base and triangular sides. **(7)**
 - The word for more than one vertex. **(8)**
 - This shape has no vertices. **(6)**
 - This shape has 4 triangular faces. **(11)**
 - This shape has 1 circular face. **(4)**





3D Shape Challenge

Find examples of everyday objects which are common 3D shapes. Accurately draw and label the object and its shape net below.

3D Shape Name	Object	Shape Net
Cylinder		



Polygons Answers

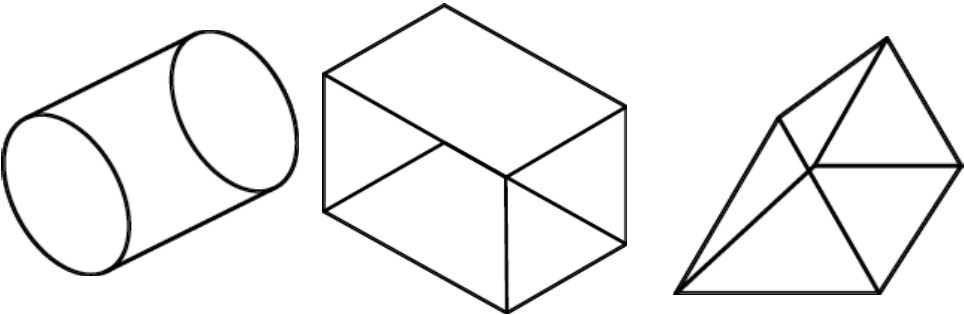
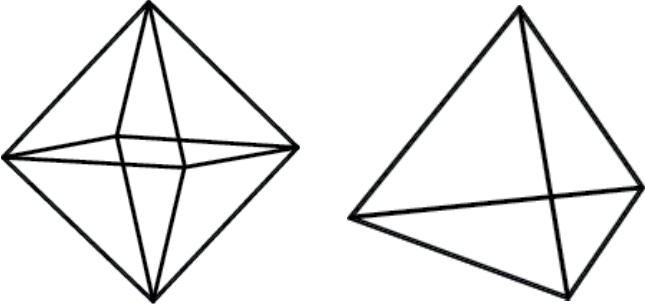
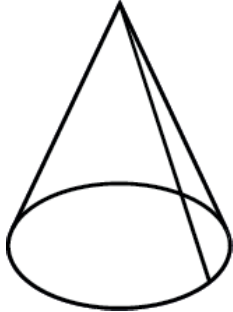
Cut out the 2D shapes and sort them into the correct place on the Carroll diagram.

	Has reflex angle	No reflex angle
No parallel sides		
Has parallel sides		



Polygons **Answers**

Cut out the 2D shapes and sort them into the correct place on the Carroll diagram.

	Even number of vertices	Odd number of vertices
Is a prism		
Is not a prism		



Polygons Answers

Fact: Angles in a triangles always total 180° .

Use the formula:

missing angle = $180 - (b + c)$ to complete this table:

	Angle a	Angle b	Angle c
Triangle 1	51°	105°	24°
Triangle 2	80°	45°	55°
Triangle 3	28°	69°	83°
Triangle 4	40°	15°	125°

Fact: Angles in a quadrilateral always total 360° .

Use the formula:

missing angle = $360 - (b + c + d)$ to complete this table:

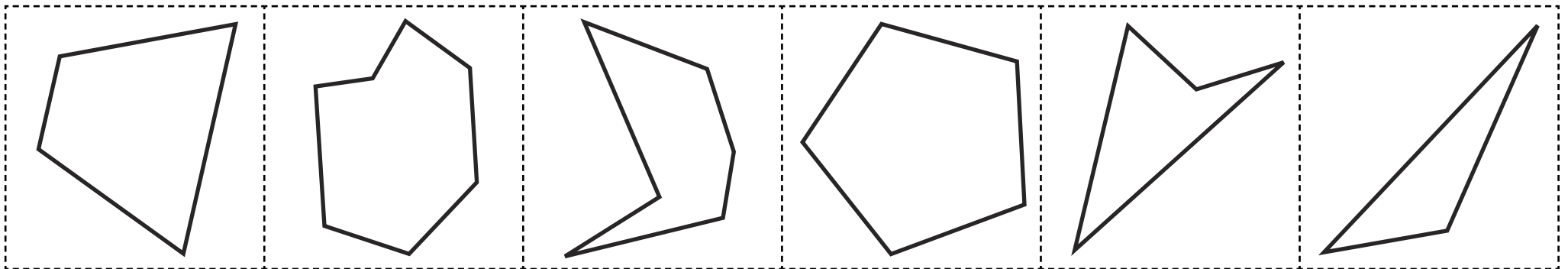
	Angle a	Angle b	Angle c	Angle d
Quadrilateral 1	96°	82°	134°	48°
Quadrilateral 2	218°	38°	48°	56°
Quadrilateral 3	121°	140°	23°	76°
Quadrilateral 4	176°	22°	95°	67°



Polygons

Cut out the 2D shapes and sort them into the correct place on the Carroll diagram.

	Has reflex angle	No reflex angle
No parallel sides		
Has parallel sides		

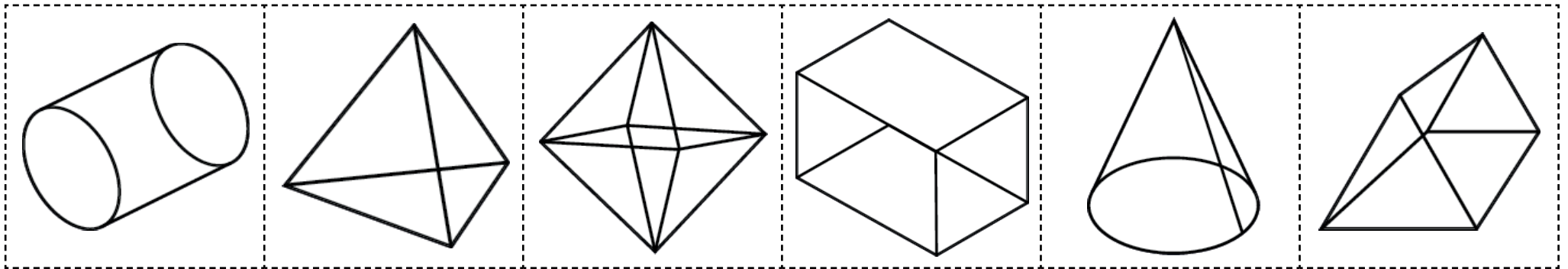




Polygons

Cut out the 2D shapes and sort them into the correct place on the Carroll diagram.

	Even number of vertices	Odd number of vertices
Is a prism		
Is not a prism		





Polygons

Fact: Angles in a triangles always total 180° .

Use the formula:

missing angle = $180 - (b + c)$ to complete this table:

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Quadrilateral 3		140°	23°	76°
Quadrilateral 4		22°	95°	67°