# **2D SHAPES**

# A PLANE GEOMETRY

## A.1 FINDING THE SIDES

Ex 1: How many sides does this shape have?



Ex 2: How many sides does this shape have?



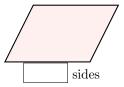
Ex 3: How many sides does this shape have?



Ex 4: How many sides does this shape have?



Ex 5: How many sides does this shape have?

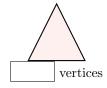


Ex 6: How many sides does this shape have?

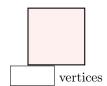


## A.2 FINDING THE VERTICES

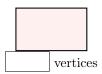
Ex 7: How many vertices does this shape have?



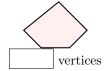
Ex 8: How many vertices does this shape have?



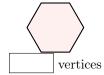
Ex 9: How many vertices does this shape have?



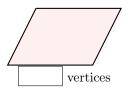
Ex 10: How many vertices does this shape have?



Ex 11: How many vertices does this shape have?



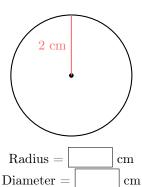
**Ex 12:** How many vertices does this shape have?



# **B CIRCLES**

#### **B.1 FINDING DIAMETERS**

Ex 13: What is the radius and what is the diameter of this circle?



Ex 14: The wheel of a child's bicycle is a circle with a radius of 15 cm. What is its diameter?



cm

Ex 15: A pizza is a circle with a radius of 15 cm. What is its diameter?



Diameter =

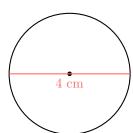
The Earth is a sphere with a radius of 6,000 km. What is its diameter?



Diameter =km

### **B.2 FINDING RADII**

Ex 17: What is the radius and what is the diameter of this circle?



 ${\rm Radius} =$ cm ${\rm Diameter} =$ cm

Ex 18: The wheel of a child's bicycle is a circle with a diameter of 30 cm. What is its radius?



Radius =

radius?



 ${\rm Radius} =$ 

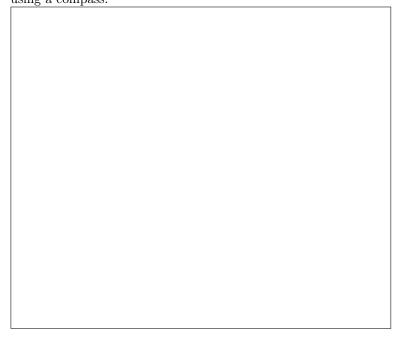
The Earth is a circle with a diameter of 12,000 km. What is its radius?



Radius = km

## **B.3 CONSTRUCTING CIRCLE WITH A RULER AND COMPASS**

Ex 21: Construct a circle with a radius of 2 cm at center O, using a compass.

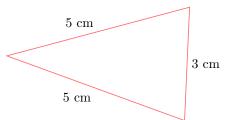


Ex 19: A pizza is a circle with a diameter of 30 cm. What is its Ex 22: Construct a circle with a radius of 3 cm at center O, using a compass.

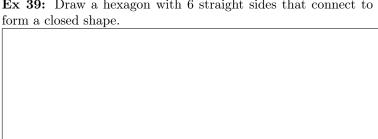
	Pick the correct answer:  Yes No MCQ 26: Is this figure a polygon?
Ex 23: Construct a circle with a radius of 2.5 cm at center $O$ , using a compass.	Pick the correct answer:  □ Yes □ No
	MCQ 27: Is this figure a polygon?
	Pick the correct answer:  Yes No MCQ 28: Is this figure a polygon?
C POLYGONS	
C.1 IDENTIFYING POLYGONS	Pick the correct answer:
MCQ 24: Is this figure a polygon?	□ Yes □ No
	MCQ 29: Is this figure a polygon?
Pick the correct answer:	
□ Yes	Pick the correct answer:
□ No	Pick the correct answer:
MCQ 25: Is this figure a polygon?	□ No

MCQ 30: Is this figure a polygon?	□ Pentagon
	☐ Hexagon
	MCQ 34: What is the name of this polygon?
Pick the correct answer:	
☐ Yes	
□ No	
	Pick the correct answer:
C.2 NAMING POLYGONS	☐ Triangle
MCQ 31: What is the name of this polygon?	$\square$ Quadrilateral
	□ Pentagon
	☐ Hexagon
	MCQ 35: What is the name of this polygon?
Pick the correct answer:	
☐ Triangle	
☐ Quadrilateral	Pick the correct answer:
☐ Pentagon	☐ Triangle
☐ Hexagon	$\Box$ Quadrilateral
MCQ 32: What is the name of this polygon?	□ Pentagon
	☐ Hexagon
	G & DD WWW DOLVED DO
	C.3 DRAWING POLYGONS
	<b>Ex 36:</b> Draw a triangle with 3 straight sides that connect to form a closed shape.
Pick the correct answer:	
☐ Triangle	
$\Box$ Quadrilateral	
☐ Pentagon	
☐ Hexagon	
MCQ 33: What is the name of this polygon?	Ex 37: Draw a quadrilateral with 4 straight sides that connec
	to form a closed shape.
Pick the correct answer:	
☐ Triangle	Ex 38: Draw a pentagon with 5 straight sides that connect t
☐ Quadrilateral	form a closed shape.





Ex 39: Draw a hexagon with 6 straight sides that connect to

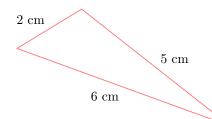




Choose one answer:

- □ Scalene
- $\square$  Isosceles
- ☐ Equilateral
- $\hfill\Box$  Right-angle

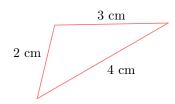
MCQ 43: Classify the triangle:



# **D** TRIANGLES

## D.1 CLASSIFYING TRIANGLES BY SIDE LENGTHS

MCQ 40: Classify the triangle:



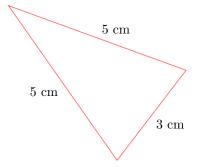
Choose one answer:

- □ Scalene
- $\square$  Isosceles
- $\square$  Equilateral
- $\square$  Right-angle

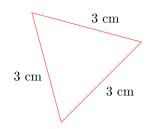
Choose one answer:

- □ Scalene
- $\square$  Isosceles
- ☐ Equilateral
- $\hfill\square$  Right-angle

MCQ 44: Classify the triangle:



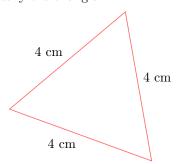
MCQ 41: Classify the triangle:



Choose one answer:

- $\hfill\Box$ Scalene
- $\square$  Isosceles
- $\square$  Equilateral
- $\square$  Right-angle

MCQ 45: Classify the triangle:



Choose two answers:

- □ Scalene
- ☐ Isosceles
- $\square$  Equilateral
- $\hfill\Box$  Right-angle

MCQ 42: Classify the triangle:

Choose one answer:	
□ Scalene	
☐ Isosceles	
$\square$ Equilateral	
$\square$ Right-angle	
MCQ 46: Classify the triangle:	
3  cm $4  cm$	
Choose one answer:	
$\square$ Scalene	
$\square$ Isosceles	
$\square$ Equilateral	En 40. Construct a triangle ABC with AB A and AC 2
$\square$ Right-angle	<b>Ex 49:</b> Construct a triangle $ABC$ with $AB = 4$ cm, $AC = 3$ cm, and $BC = 5$ cm, leaving the construction marks visible, using a ruler and a compass.
MCQ 47: Classify the triangle:	
Choose one or two answers:	
□ Scalene	
□ Isosceles	
$\square$ Equilateral	
$\square$ Right-angle	
D.2 CONSTRUCTING TRIANGLES WITH A RULER AND COMPASS	

**Ex 48:** Construct a triangle ABC with AB = 3 cm, AC = 6 cm, and BC = 5 cm, leaving the construction marks visible, using a ruler and a compass.

**Ex 50:** Construct an equilateral triangle ABC with AB=4 cm, leaving the construction marks visible, using a ruler and a compass.

			□ True □ False
			MCQ 55: A square is a special type of rectangle.  Choose one answer:
			☐ True
			□ False
			MCQ 56: A rectangle is a special type of square.  Choose one answer:
			☐ True
			□ False
			MCQ 57: A rectangle is a special type of parallelogram. Choose one answer:
<b>D</b> - 1 - 2		1 ADG 11 45	☐ True
AC = 3  cm	a, and $BC = 3$ cm, leave	ngle $ABC$ with $AB = 4$ cm, ving the construction marks	
visible, using	g a ruler and a compass		
E QUA	DRILATERALS		
E.1 QUADRIL	DETERMINING LATERALS	PROPERTIES OF	
MCQ 52: Choose one a  True False	A square has four right	angles.	
	The opposite sides of a	rhombus are parallel.	
$\square$ True $\square$ False			
MCQ 54:	The adjacent sides of a	rectangle are parallel.	

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Choose one answer: