



# 3055 BA SANGAM COLLEGE

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## WORKSHEET 17 YEAR 09

SUBJECT: MATHEMATICS

NAME OF STUDENT: \_\_\_\_\_

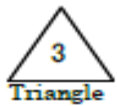
STRAND	GEOMETRY
SUB-STRAND	Angles
Content Learning Outcome	Discover and apply properties of shapes, and angles on pairs of intersecting lines

### Angles in a polygon

#### Objective:

- Identify the different types of polygon
- Calculate the angles of polygons using the polygon properties

### Polygon with number of sides



Triangle



Quadrilateral



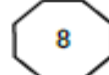
Pentagon



Hexagon



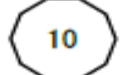
Heptagon



Octagon



Nonagon



Decagon

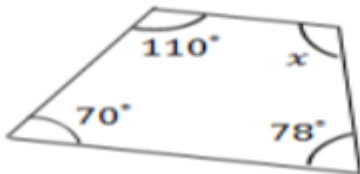
The sum of the interior angles in an n-sided polygon is  $180^\circ \times (n - 2)$

The sum of the exterior angles in an n-sided polygon is always equal to  $360^\circ$

### Exercise 1

Work out the angles marked with letters

(a)



(b)

regular hexagon



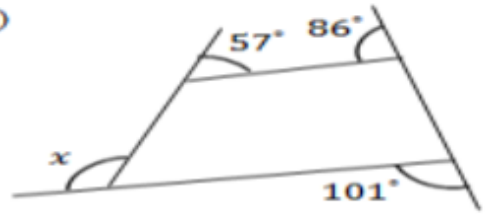
(c) regular pentagon



(e) regular hexagon



(d)

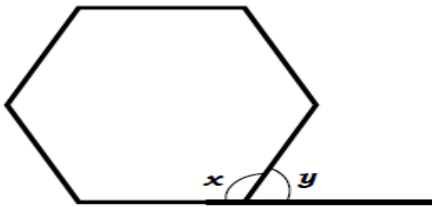


(f) regular octagon



### Fiji Year 9 External Paper- 2015

1. For the regular hexagon given below, calculate the size of the angle marked  $x$  and  $y$



(2 m)

2. What name is given to a nine – sided polygon

(1m)