

Canonbury Home Learning

Year 6 Maths

Developing/ Expected/ Greater depth activity

Lesson 5

LO: TBAT identify angles and degrees in a shape.

Task: You are going apply your knowledge to solve several problems including angles and degrees in a shape.

Success Criteria:

1. Read the question.
2. Identify the angle you need to find.
3. Use the information provided to find the missing angle.

Recap:

Please watch my model video.

Finding Missing Angles

Angles on a straight line always add up to 180°

$117^\circ + ? = 180^\circ$
 $180^\circ - 117^\circ = 63^\circ$
The missing angle is 63° .

$? + 142^\circ = 180^\circ$
 $180^\circ - 142^\circ = 38^\circ$
The missing angle is 38° .

**Missing Vertically Opposite Angles
Opposite angles are equal.**

$? = 50^\circ$
The missing angle is 50° .

$123^\circ = ?$
The missing angle is 123° .

Angles around a point total 360°

The two known opposite angles total 100° .
 $360^\circ - 100^\circ = 260^\circ$
 $260^\circ \div 2 = 130^\circ$
The missing angle is 130° .

The two known opposite angles total 246° .
 $360^\circ - 246^\circ = 114^\circ$
 $114^\circ \div 2 = 57^\circ$
The missing angle is 57° .

The interior angles in all quadrilaterals total 360°

Irregular Trapezium

Square

Kite

Isosceles Trapezium

Rhombus

Parallelogram

THE ANGLE FAMILY!

Angles are measured in degrees, which are represented by the symbol $^\circ$.

MRS RIGHT ANGLE

A RIGHT ANGLE ALWAYS MEASURES 90° .

MR OBTUSE ANGLE

AN OBTUSE ANGLE IS ALWAYS INSIDE. THIS ANGLE MEASURES BETWEEN 90° AND 180° .

BABY ACUTE ANGLE

AN ACUTE ANGLE IS ANYTHING LESS THAN 90° . (IT THINK ACUTE. CUTE: AN ACUTE IS THE)

REFLEX ANGLE

A REFLEX ANGLE IS ALWAYS OUTSIDE. THIS ANGLE MEASURES BETWEEN 180° AND 360° .

There are 360° in a circle.
 $90^\circ \times 4 = 360^\circ$

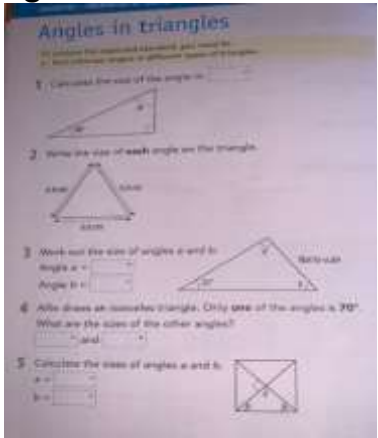
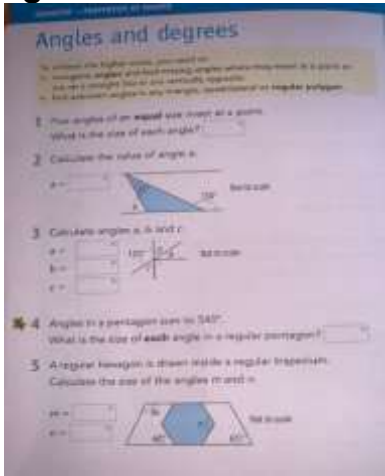
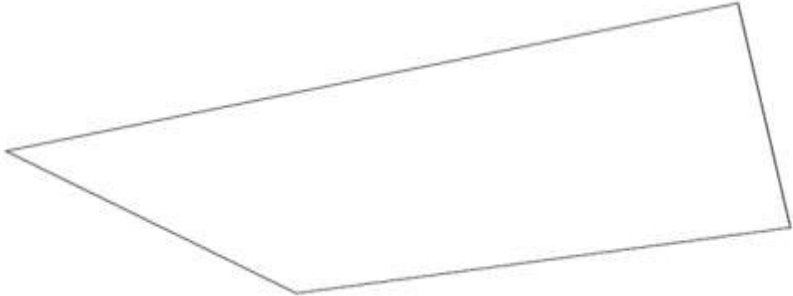
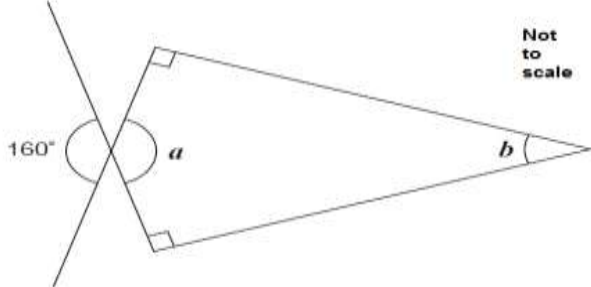
There are 360° in a square.
 $4 \text{ right angles} = 360^\circ$
A straight line measures 180° exactly!

Angles in a triangle = 180°
 $60^\circ + 60^\circ + 60^\circ = 180^\circ$

Year 6 Maths

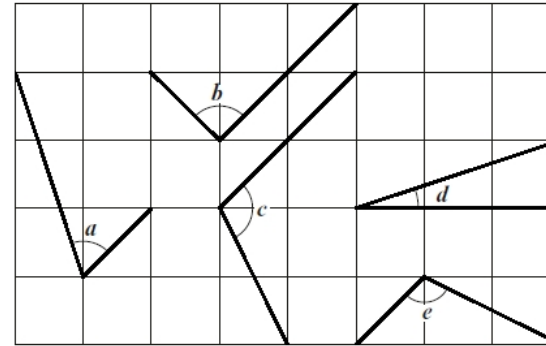
Main activity

Complete at least 2 columns, more if you can!

Task 1	Task 2	Task 3
<p>SATs Book Activities Developing/ Expected Pg.</p>  <p>Greater Depth Pg.</p> 	<p>Arithmetic</p> <p>22 $1\frac{1}{3} \times 2 =$</p> <hr/> <p>23 $\frac{4}{5}$ of 450 =</p> <hr/> <p>24 $53 \overline{)2248} =$</p> <hr/> <p>25 $\frac{1}{5} \times \frac{1}{3} =$</p> <p>26 66% of 3000 =</p> <hr/> <p>27 $\frac{1}{6} + 2 =$</p> <hr/> <p>28 $\frac{6}{7} - \frac{3}{4} =$</p>	<p>Problem Solving/ Reasoning Task 1</p> <p>In this shape, one of the angles is obtuse.</p> <p>Tick (✓) the obtuse angle.</p>  <p>Task 2</p> <p>Calculate the size of angles a and b in this diagram.</p>  <p style="text-align: right;">Not to scale</p> <p>$a =$ <input type="text"/> °</p> <p>$b =$ <input type="text"/> °</p>

Task 3

Here are five angles marked on a grid of squares.



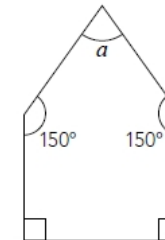
Write the letters of the angles that are **obtuse**.

Write the letters of the angles that are **acute**.

Task 4

The diagram shows a pentagon.

Not drawn
accurately



Each side of the pentagon is the **same length**.

Is the shape a **regular** pentagon?

Circle **Yes** or **No**.

Yes / No

Explain your answer.

Work out the size of angle a