

Canonbury Home Learning

Year 6 Maths

Developing/ Expected/ Greater depth activity

Lesson 4

LO: TBAT identify the different measurements of a circle and angles in a triangle.

Task: You are going apply your knowledge to solve several problems including circles and triangles.

Success Criteria:

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

Recap:

Please watch my model video.

Reflex angle
A reflex angle is an angle that is bigger than 180°

Obtuse angle
An obtuse angle is an angle between 90° and 180°

Right angle
A right angle is an angle that measures 90°

Triangles
The angles of any triangle will always add up to 180°

Parts of a Circle

The word circle comes from the Latin word 'Circulus' which means disc.

The tangent just touches the circle!

The radius is half of the diameter

The area is: $\pi \times \text{radius}^2$

The circumference is $\pi \times 2 \times \text{radius}$

The chord splits the circle into different segments

Types of Triangles

There are four main types of Triangles: **Equilateral, Isosceles, Right, and Scalene**

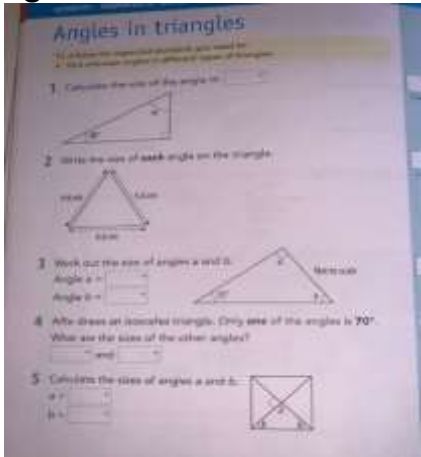
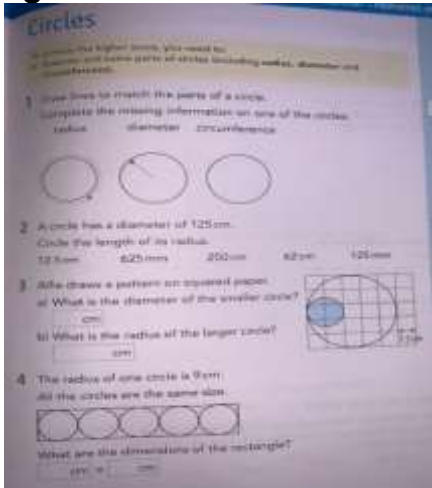

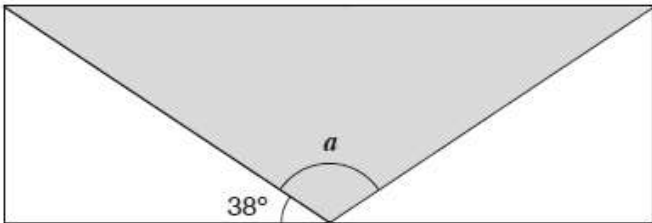
Equilateral - all three sides are equal, and all three equal angles are 60°

Isosceles - two sides are equal, and their two base angles are equal.

Scalene - All sides and angles are different sizes.

Right Triangle - One of the angles is a 90 degree L shaped angle.

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> <table border="1"> <tr> <td>15</td> <td>$3^3 =$</td> </tr> <tr> <td>16</td> <td>$2\frac{2}{9} + 3\frac{5}{9} =$</td> </tr> <tr> <td>17</td> <td>$12.05 \div 100 =$</td> </tr> <tr> <td>18</td> <td>$0.06 \times 7 =$</td> </tr> <tr> <td>19</td> <td>$\frac{5}{6} = \frac{20}{?}$</td> </tr> <tr> <td>20</td> <td>$9.07 \times 5 =$</td> </tr> <tr> <td>21</td> <td>$\begin{array}{r} 409 \\ \times \quad 45 \\ \hline \end{array}$</td> </tr> </table>	15	$3^3 =$	16	$2\frac{2}{9} + 3\frac{5}{9} =$	17	$12.05 \div 100 =$	18	$0.06 \times 7 =$	19	$\frac{5}{6} = \frac{20}{?}$	20	$9.07 \times 5 =$	21	$\begin{array}{r} 409 \\ \times \quad 45 \\ \hline \end{array}$	<p>Problem Solving/ Reasoning Task 1</p> <p>Layla completes one-and-a-half somersaults in a dive.</p>  <p>How many degrees does Layla turn through in her dive?</p> <p>Task 2</p> <p>A shaded isosceles triangle is drawn inside a rectangle.</p>  <p>Not to scale</p> <p>Calculate the size of angle a.</p>
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Task 3

Kirsty says,



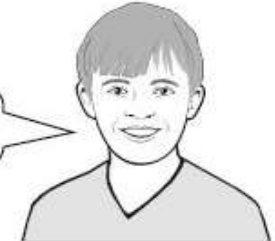
When you double the size of an acute angle, you always get an obtuse angle.

Explain why Kirsty is **not** correct.

Task 4

Two of the angles in a triangle are 70° and 40°

Jack says,



The triangle is equilateral.

Explain why Jack is **not** correct.