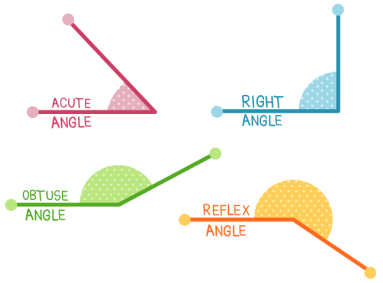
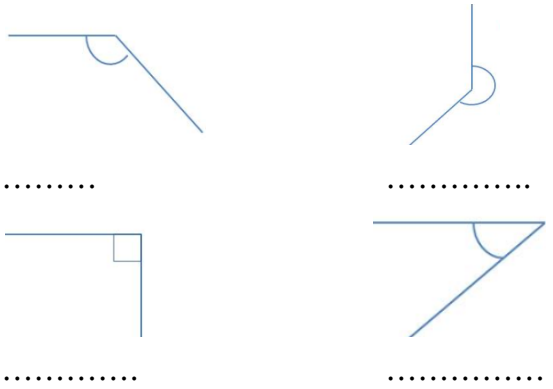
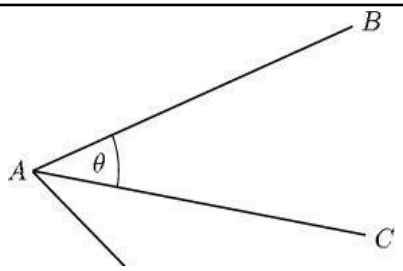
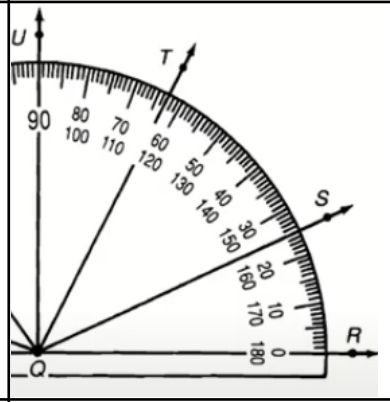
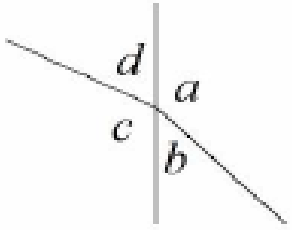
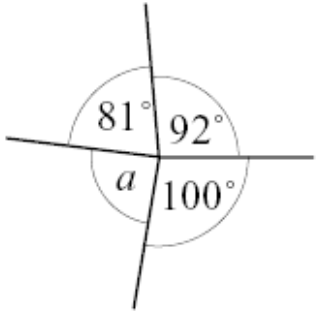
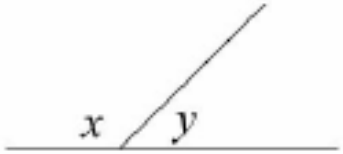
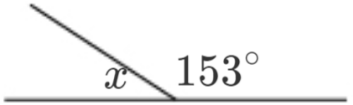
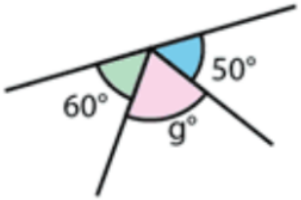
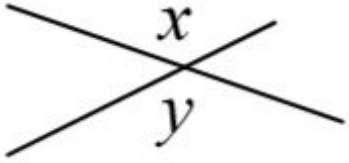
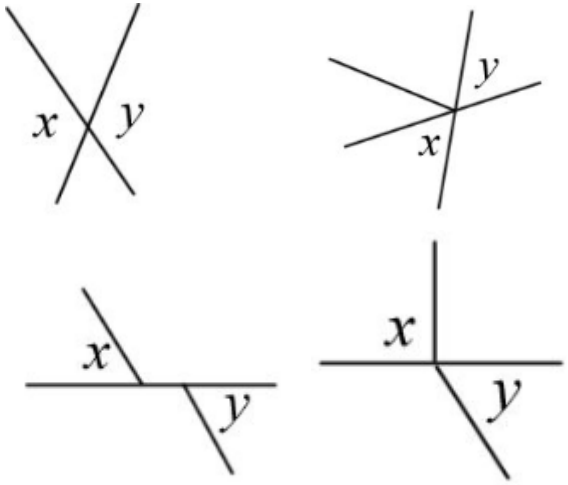
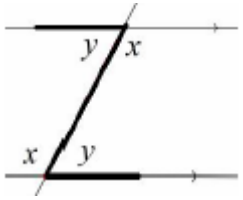
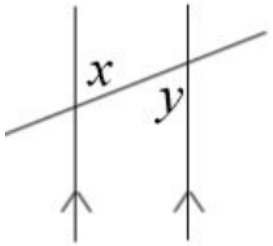
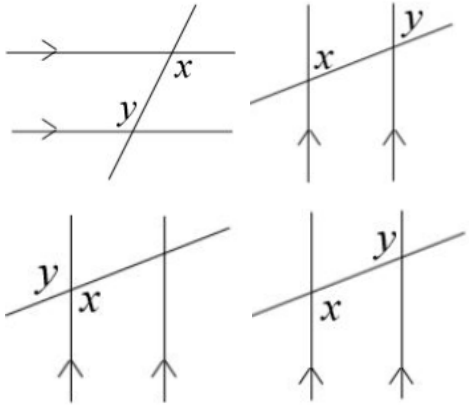
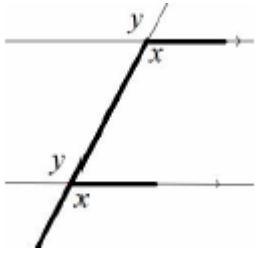
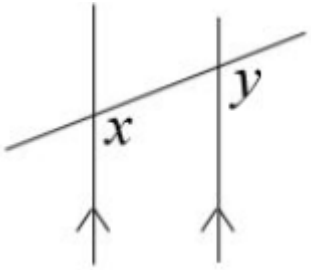
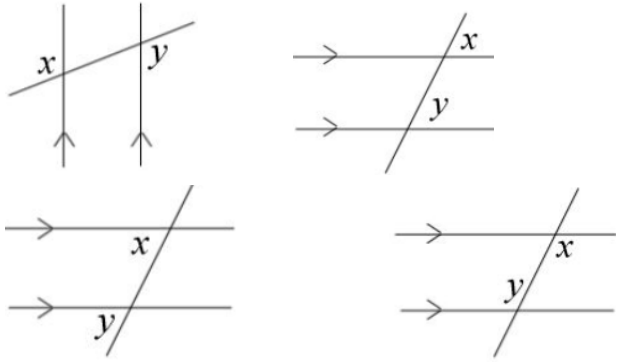
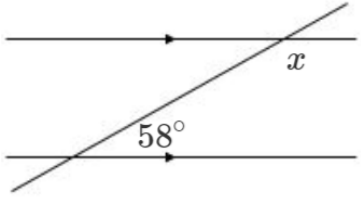
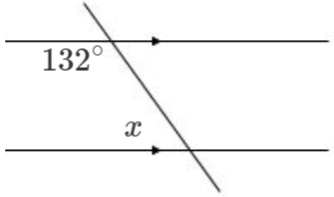
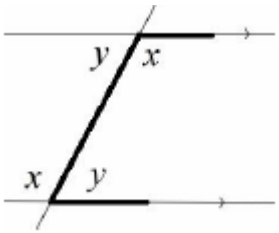
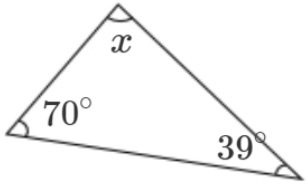
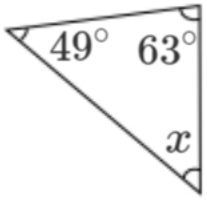
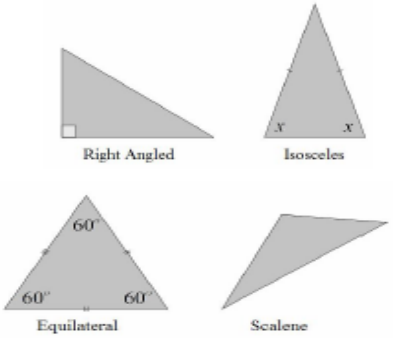
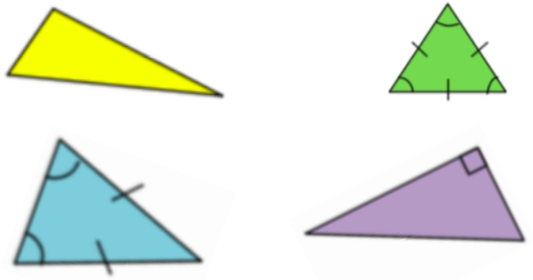
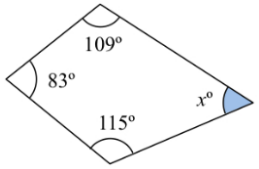
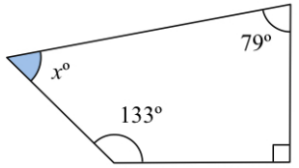
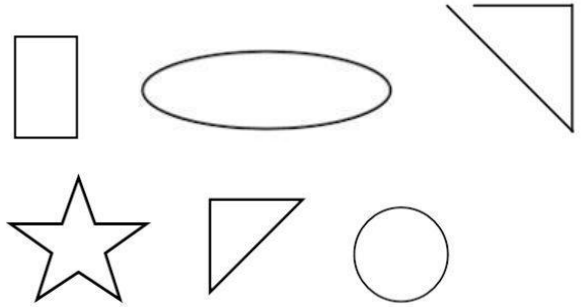
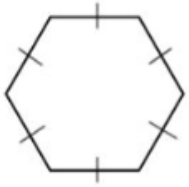
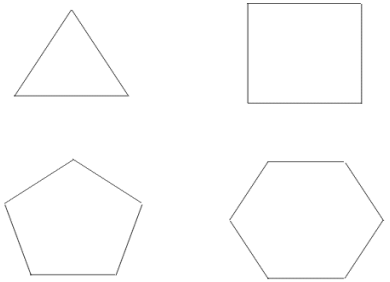
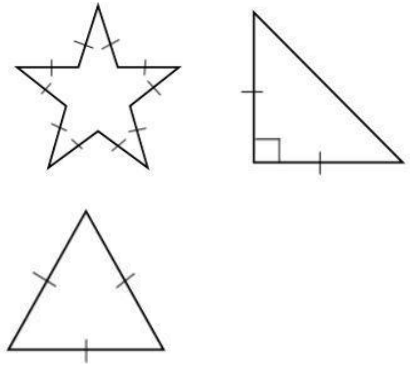
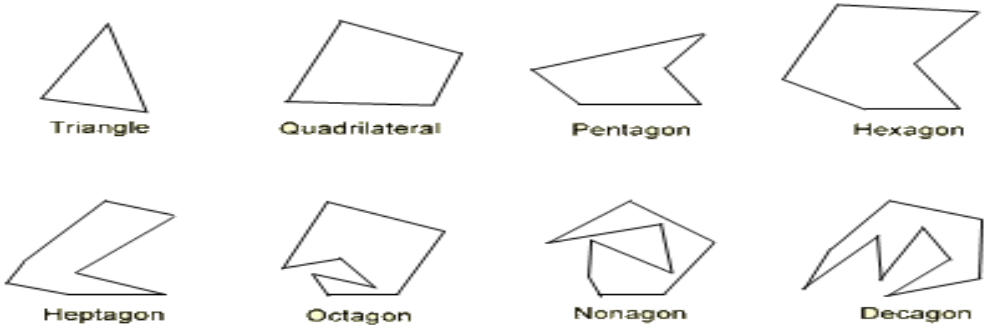
GCSE Mathematics – Unit 6: Angles **Name:……**

Topic/Skill	Definition/Tips	Example	Your Turn
1. Types of Angles	**Acute angles** are less than 90°. **Right angles** are exactly 90°. **Obtuse angles** are greater than 90° but less than 180°. **Reflex angles** are greater than 180° but less than 360°.		
2. Angle Notation	You can use **one lower-case** letter, eg. θ (called theta) or x We can use the symbol ∠ as a shorthand for angle You can use **three upper-case** letters, eg. BAC – where the middle letter is the corner of the angle.	 ∠BAC is θ °	 How many degrees is: ∠RQS: …… ∠RQU: …… ∠SQT: ……
3. Angles at a Point	**Angles around a point add up to 360°**.	 $a+b+c+d=360^{o}$	 a= ……°

4. Angles on a Straight Line	**Angles around a point on a straight line add up to 180°**.	 $x + y = 180^o$	Which missing angles can you find?  
5. Opposite Angles	**Vertically opposite angles are equal**. Vertically comes from the word vertex, meaning a **point.** Two angles are only vertically opposite if they are the opposite angles where two **straight lines intersect.**	 $x = y$	Tick each correct example: 

6. Alternate Angles	**Alternate angles are equal**. They look like Z angles, but never say this in the exam. 	 $x = y$	Tick each correct example: 
7. Corresponding Angles	**Corresponding angles are equal**. They look like F angles, but never say this in the exam. 	 $x = y$	Tick each correct example: 
8. Co-Interior Angles	**Co-Interior angles add up to 180°**. They look like C angles, but never say this in the exam.	 $x = 180 - 58$ $x = 122°$	 $x =$

			
9. Angles in a Triangle	**Angles in a triangle add up to 180°.**	 $x = 180 - 70 - 39$ $x = 71°$	 $x =$
10. Types of Triangles	**Right Angle** Triangles have a **90°** angle in. **Isosceles** Triangles have **2 equal sides** and **2 equal base angles**. **Equilateral** Triangles have **3 equal sides** and **3 equal angles (60°)**. **Scalene** Triangles have **different sides** and **different angles**.		Label each triangle: 
11. Angles in a Quadrilateral	**Angles in a quadrilateral add up to 360°.**	 $x = 360 - 115 - 83 - 109$ $x = 53°$	 $x =$

12. Polygon	A **2D** shape with **only straight edges**.	Rectangle, Hexagon, Decagon, Kite etc.	Tick each correct example: 
13. Regular	A shape is regular if all the **sides** and all the **angles** are **equal**.  We use 'hatch-marks' (little lines) to show that the sides are equal.		Tick each correct example: 
14. Names of Polygons	**3**-sided = **Triangle** **4**-sided = **Quadrilateral** **5**-sided = **Pentagon** **6**-sided = **Hexagon** **7**-sided = **Heptagon**/Septagon **8**-sided = **Octagon** **9**-sided = **Nonagon** **10**-sided = **Decagon**		

15. Sum (total) of Interior Angles	$(n - 2)\times 180$ n is the number of sides	Sum of Interior Angles in a Decagon = $(10 - 2)\times 180 = 1440°$	Sum of Interior Angles in an Hexagon =
16. Size of Interior Angle in a Regular Polygon	$\frac{(n-2)\times 180}{n}$ You can also use the formula: $180 - Size\ of\ Exterior\ Angle$	Size of one Interior Angle in a Regular Pentagon = $\frac{(5-2)\times 180}{5} = 108°$	Size of one Interior Angle in a Regular Hexagon =
17. Size of Exterior Angle in a Regular Polygon	$\frac{360}{n}$ You can also use the formula: $180 - Size\ of\ Interior\ Angle$	Size of Exterior Angle in a Regular Octagon = $\frac{360}{8} = 45°$	Size of Exterior Angle in a Regular Hexagon =