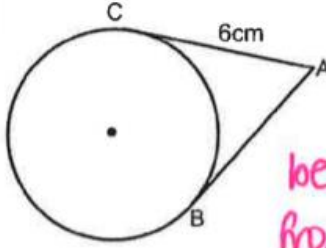
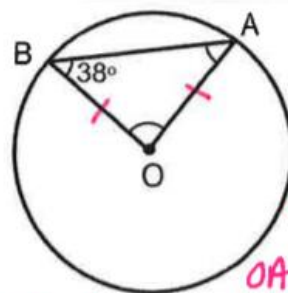
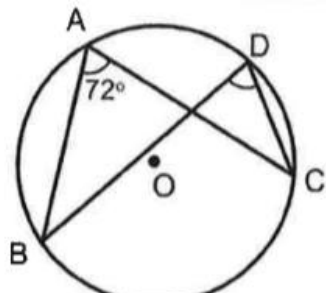
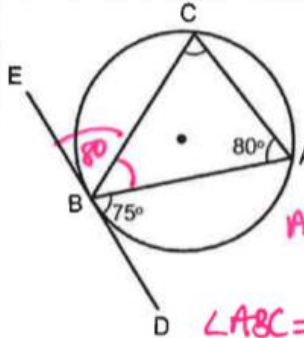
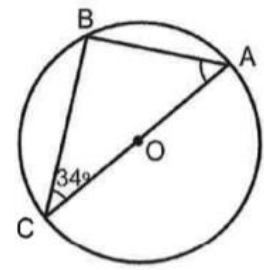
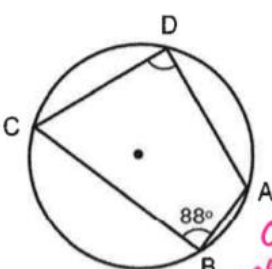
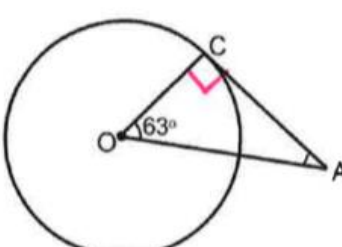
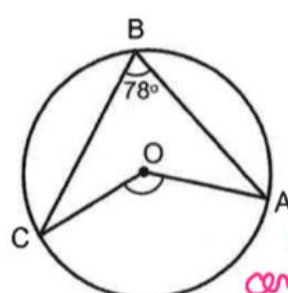


Year 10 Higher - Circle Theorems Answers

Match the statements to the diagrams

1 & G	2 & C	3 & D	4 & H	5 & E	6 & F	7 & A	8 & B
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Work out the missing lengths and angles. Write down the reasons for your answers

 <p>AC and AB are tangents to the circle. Length AB = 6cm because tangents from a point are equal</p>	 <p>$\angle BOA =$ $= 180 - 2 \times 38$ $= 104^\circ$ OA = OB (radii) and base angles of an isosceles triangle are equal</p>
 <p>$\angle BDC = 72^\circ$ Angles in the same segment are equal</p>	 <p>$\angle ABC =$ $\angle EBC = 80^\circ$ Alternate segment theorem $\angle ABC = 180 - (80 + 75)$ $= 25^\circ$ Angles on a straight line sum to 180</p>
 <p>$\angle BAC = 180 - (90 + 34)$ $= 56^\circ$ Angle in a semi-circle is a right angle</p>	 <p>$\angle ADC =$ $= 180 - 88$ $= 92^\circ$ Opposite angles of a cyclic quadrilateral sum to 180</p>
 <p>AC is a tangent to the circle. $\angle OAC = 180 - (90 + 63)$ $= 27^\circ$ Tangent meets a radius at 90</p>	 <p>$\angle AOC =$ $= 2 \times 78$ $= 156^\circ$ Angle at the centre is twice angle at circumference</p>