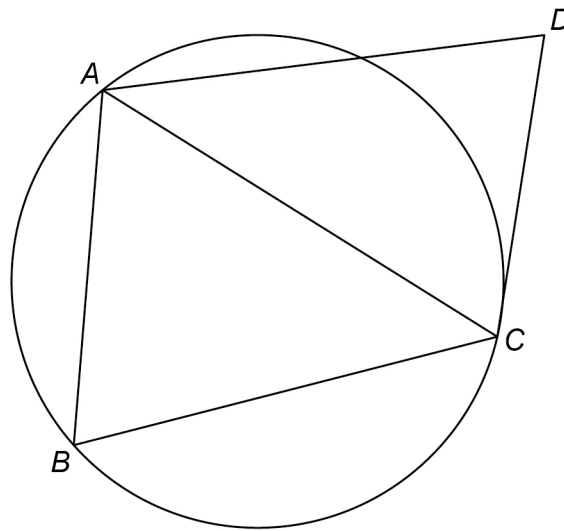


20

A , B and C are points on a circle.

CD is a tangent.

Not drawn
accurately



20 (a) Assume that triangle ABC is isosceles with $AC = BC$

Prove that AB is parallel to DC .

[4 marks]



20 (b) In fact, triangle ABC is equilateral.

Tick the **two** boxes for the statements that **must** be correct.

[1 mark]

AB is parallel to DC

AC bisects angle BCD

AC bisects angle BAD

21 Solve the simultaneous equations

$$2x + 3y = 5p$$

$$y = 2x + p$$

where p is a constant.

Give your answers in terms of p in their simplest form.

[4 marks]

$$x = \underline{\hspace{2cm}} \quad y = \underline{\hspace{2cm}}$$

