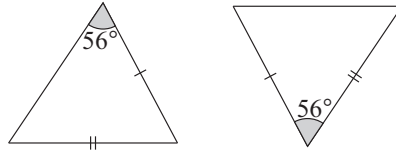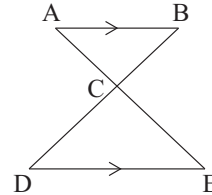1. *Explain* why these two triangles are congruent.
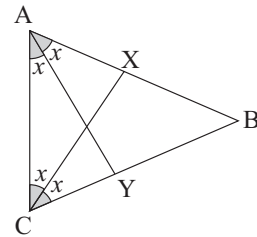
2. *Explain* why these two triangles are *not* congruent.

3. AB is parallel to DE.
   BC = CD.
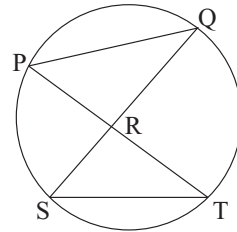   Prove that triangles ABC and CDE are congruent.

4. **a** Prove that triangles ACX and ACY are congruent.
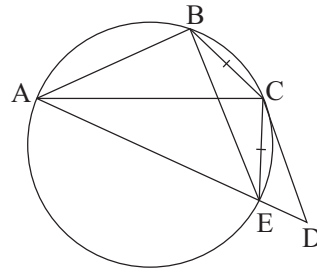   **b** *Explain* why AY = CX.

5. ABCD is a parallelogram.
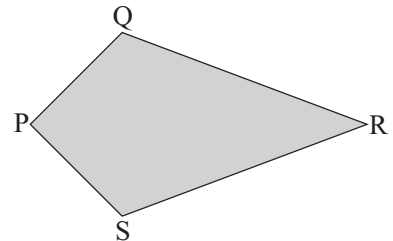   Prove that triangles ABD and CBD are congruent.

6. PR = RS.
   Prove that triangles PQR and RTS are congruent.

7. Triangle BCE is isosceles as shown.
   AB = ED.
   a Prove that triangles ABC and CED are congruent.
   b *Explain* why angle BAC = angle CDE.

8. PQRS is a kite.
   Use congruent triangles to prove that diagonal PR bisects angle SPQ.

9. Triangle ABC is isosceles with AB = BC.
   M and N are the midpoints of AB and BC respectively.
   PQBM and BRSN are both squares.
   a Prove that triangles BRM and BNQ are congruent.
   b Explain why MR = NQ.