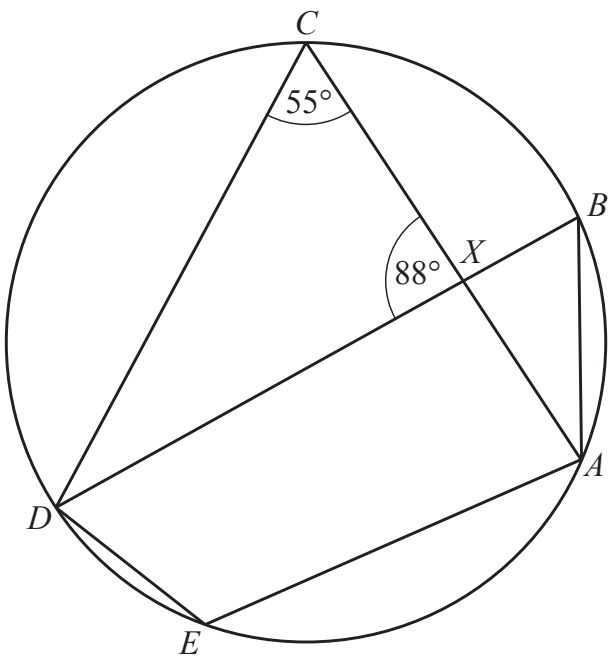
14



NOT TO SCALE

A, B, C, D and E lie on the circle.
AC and BD intersect at X.
Angle $ACD = 55°$ and angle $CXD = 88°$.

(a) Complete the statements, giving a geometrical reason in each part.

Angle CDB = ... because .....

.....

Angle ABD = ... because .....

.....

Angle AED = ... because .....

.....

[6]

(b) Triangle CXD is mathematically similar to triangle BXA.
$DX = 8.0$ cm, $BX = 2.7$ cm and $AX = 4.0$ cm.

(i) Work out the length of CX.

CX = ... cm [2]

(ii) Complete the statement.

Area of triangle CXD : area of triangle BXA = ... : ..... [1]

15 **(a)** Write 66 000 in standard form.

..... [1]

(b) Work out $(3.7 \times 10^8) + (3.7 \times 10^7)$.

Give your answer in standard form.

..... [2]