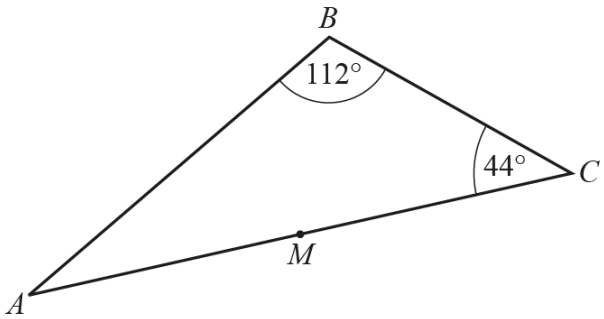
1. Nov/2023/Paper_0444/23/No.6



NOT TO SCALE

The diagram shows triangle ABC.
M is the midpoint of AC.

Triangle ABC is rotated 180° about center M.
The image and the original triangle together form a quadrilateral $ABCD$.

(a) Write down the mathematical name of the quadrilateral $ABCD$.

..... [1]

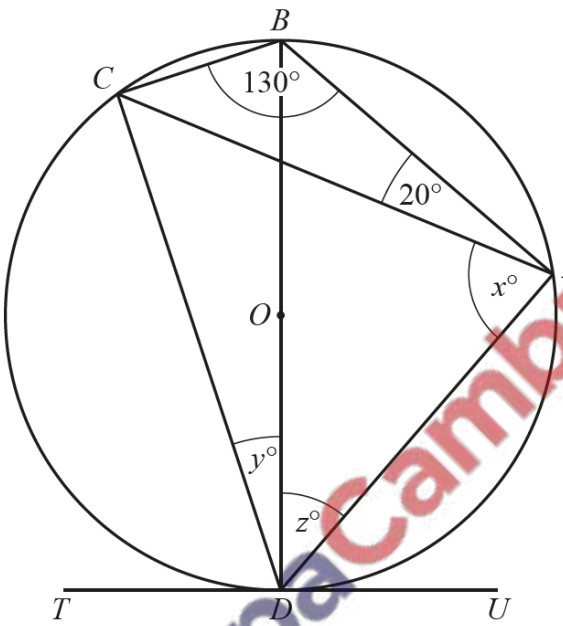
(b) Find angle BAD.

Angle BAD = ... [2]

(a) Find the size of one interior angle of a regular 10-sided polygon.

..... [2]

(b)



NOT TO SCALE

A, B, C, and D are points on the circle, center O.
TU is a tangent to the circle at D.
BD is a diameter of the circle.

(i) Complete the statement.

Angle BDU = ... because .....

..... [2]

(ii) Find the value of each of x, y, and z.

x = ...

y = ...

z = ... [3]