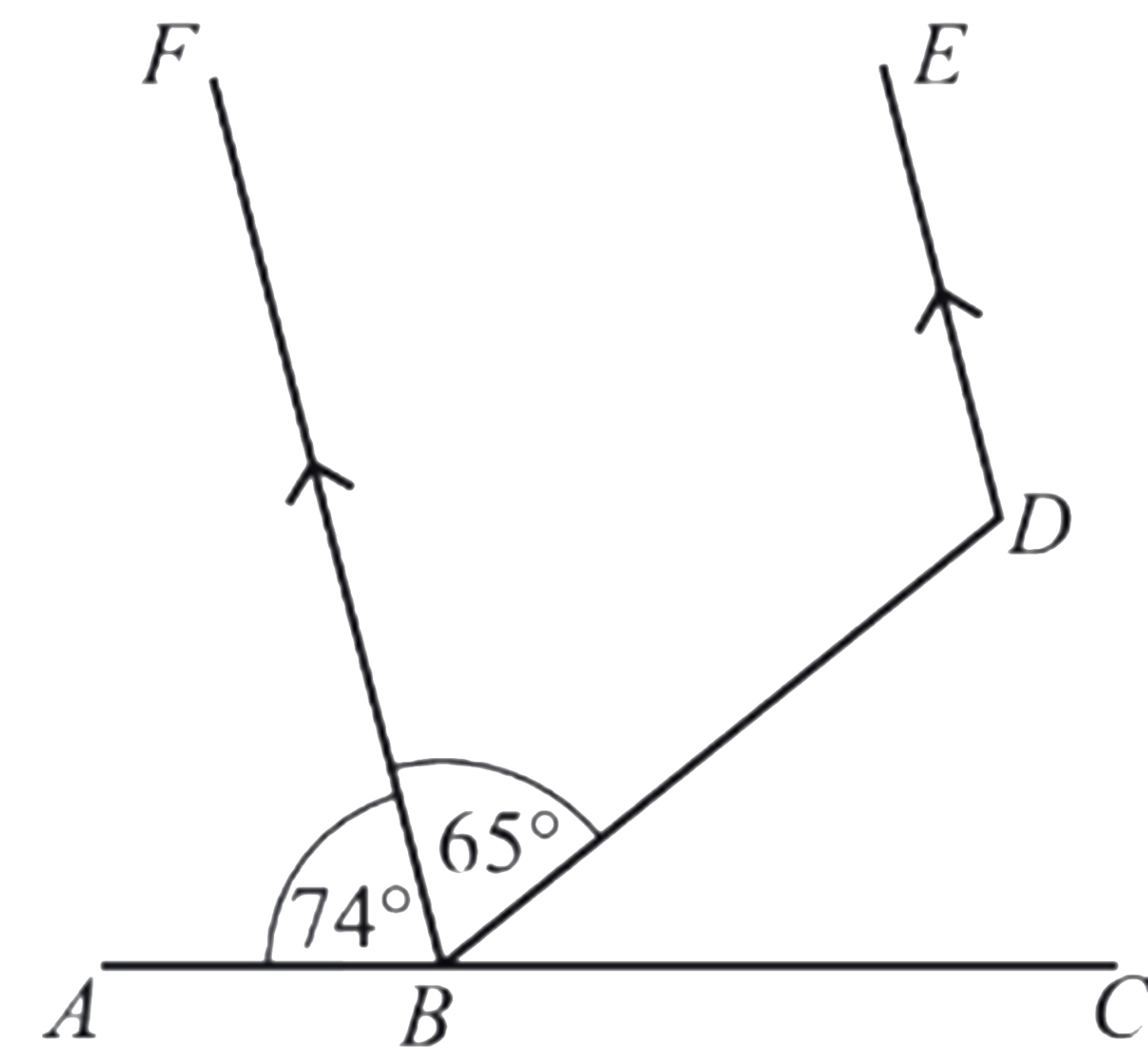


Unit 27: Geometrical Terms

1. O/N 16/P12/Q5

In the diagram, ABC is a straight line and BF is parallel to DE .
 $\hat{FBA} = 74^\circ$ and $\hat{DBF} = 65^\circ$.

- (a) Find \hat{CBD} . [1]
- (b) Find reflex \hat{BDE} . [1]

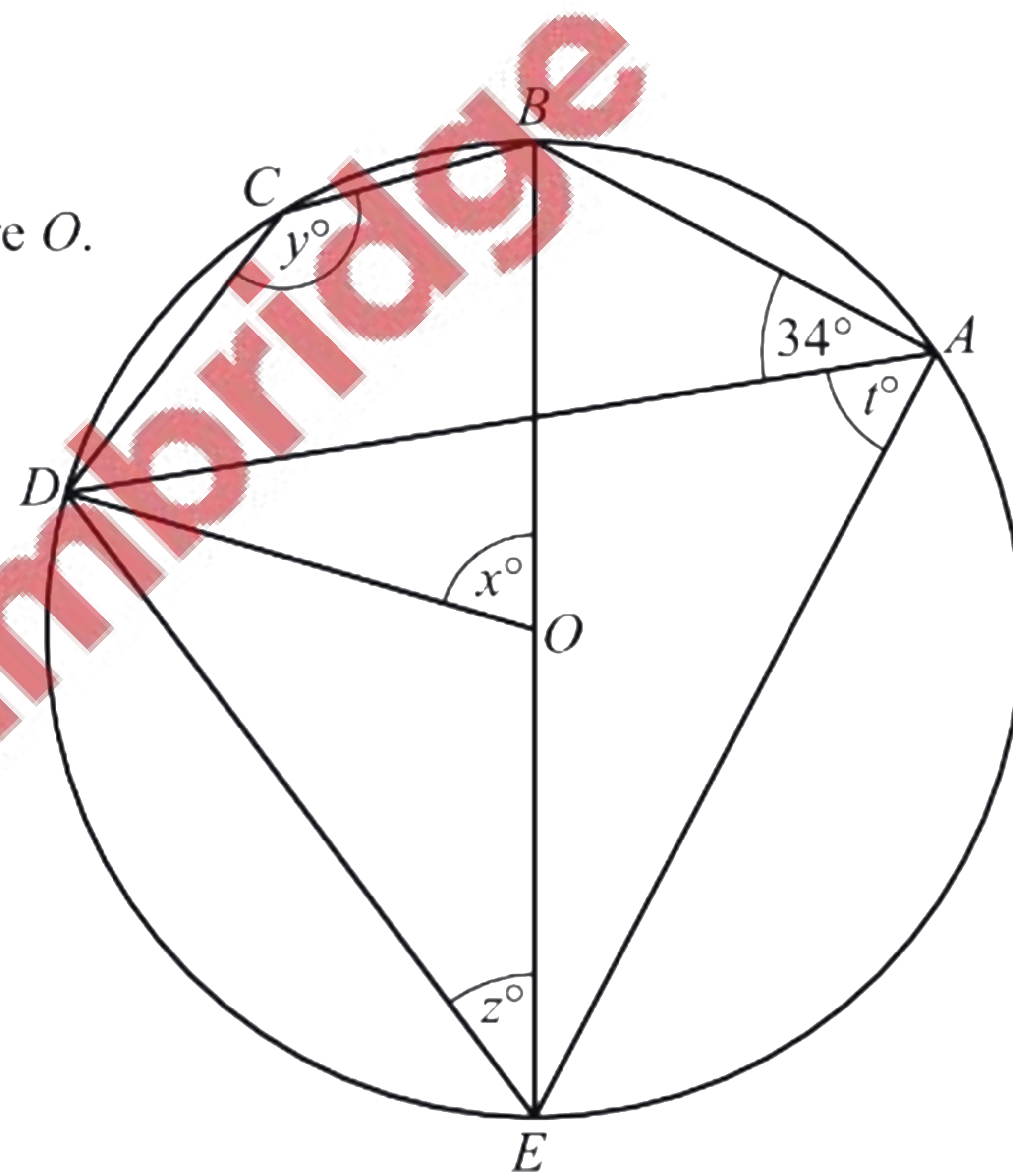


2. O/N 16/P12/Q24

In the diagram, A, B, C, D and E lie on the circle, centre O .
 BOE is a straight line.

$\hat{DAB} = 34^\circ$.

- (a) Find x . [1]
- (b) Find y . [1]
- (c) Find z . [1]
- (d) Find t . [1]



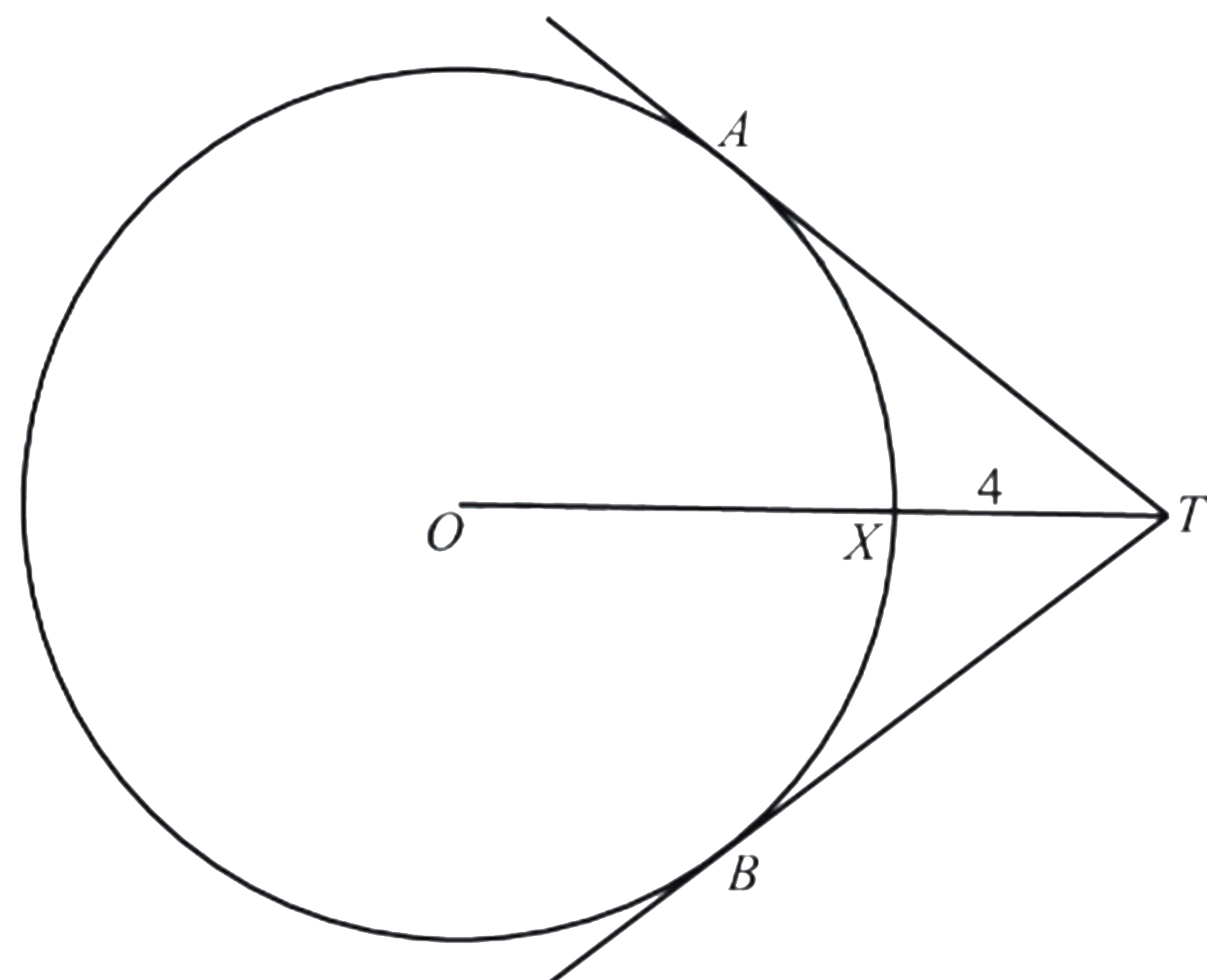
3. O/N 14/P11/Q9

The diagram shows a circle, centre O , with radius 6 cm.

Tangents are drawn from T to touch the circle at A and B .

OXT is a straight line intersecting the circle at X with $XT = 4$ cm.

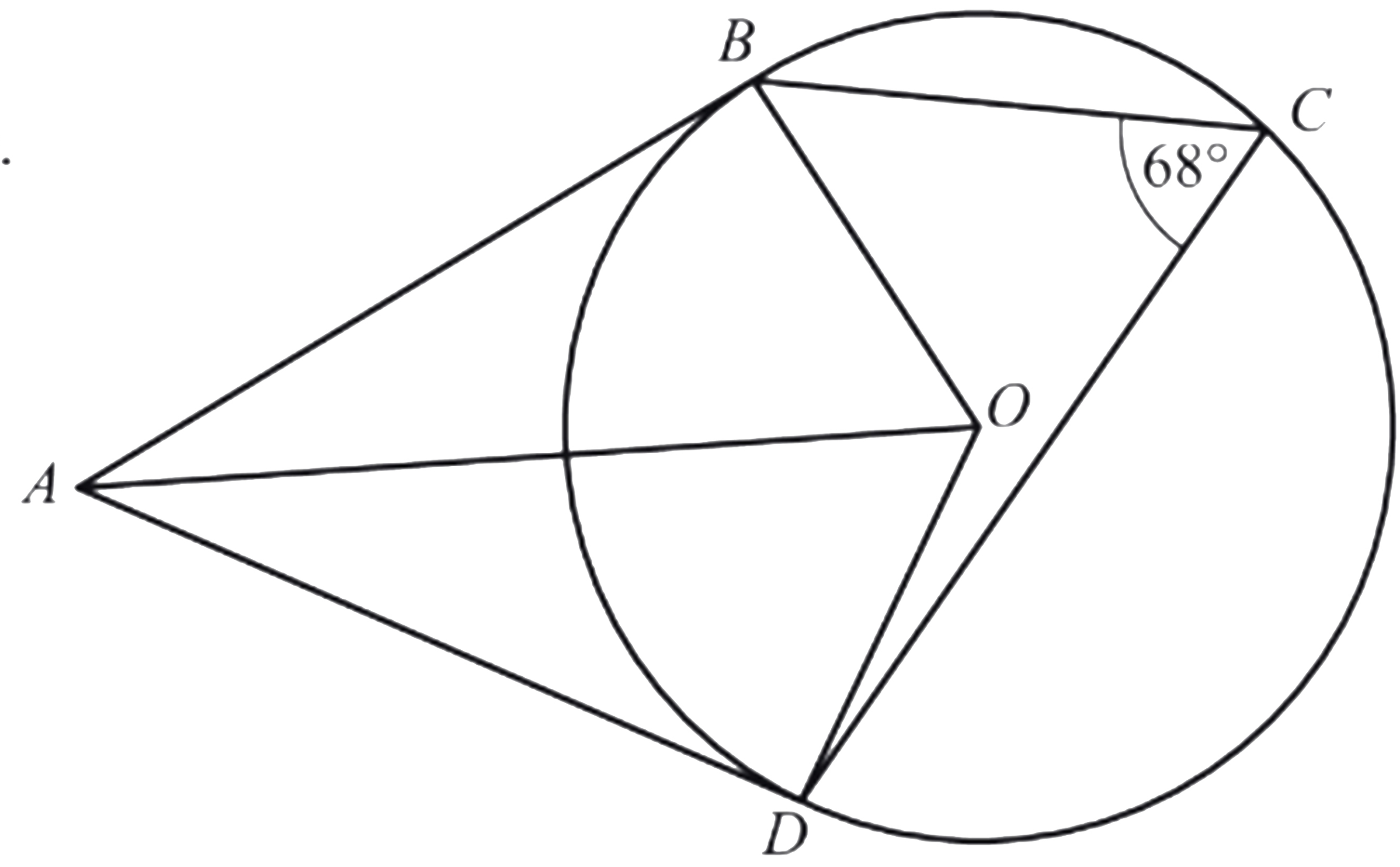
Calculate AT . [3]



4. M/J 13/P12/Q23

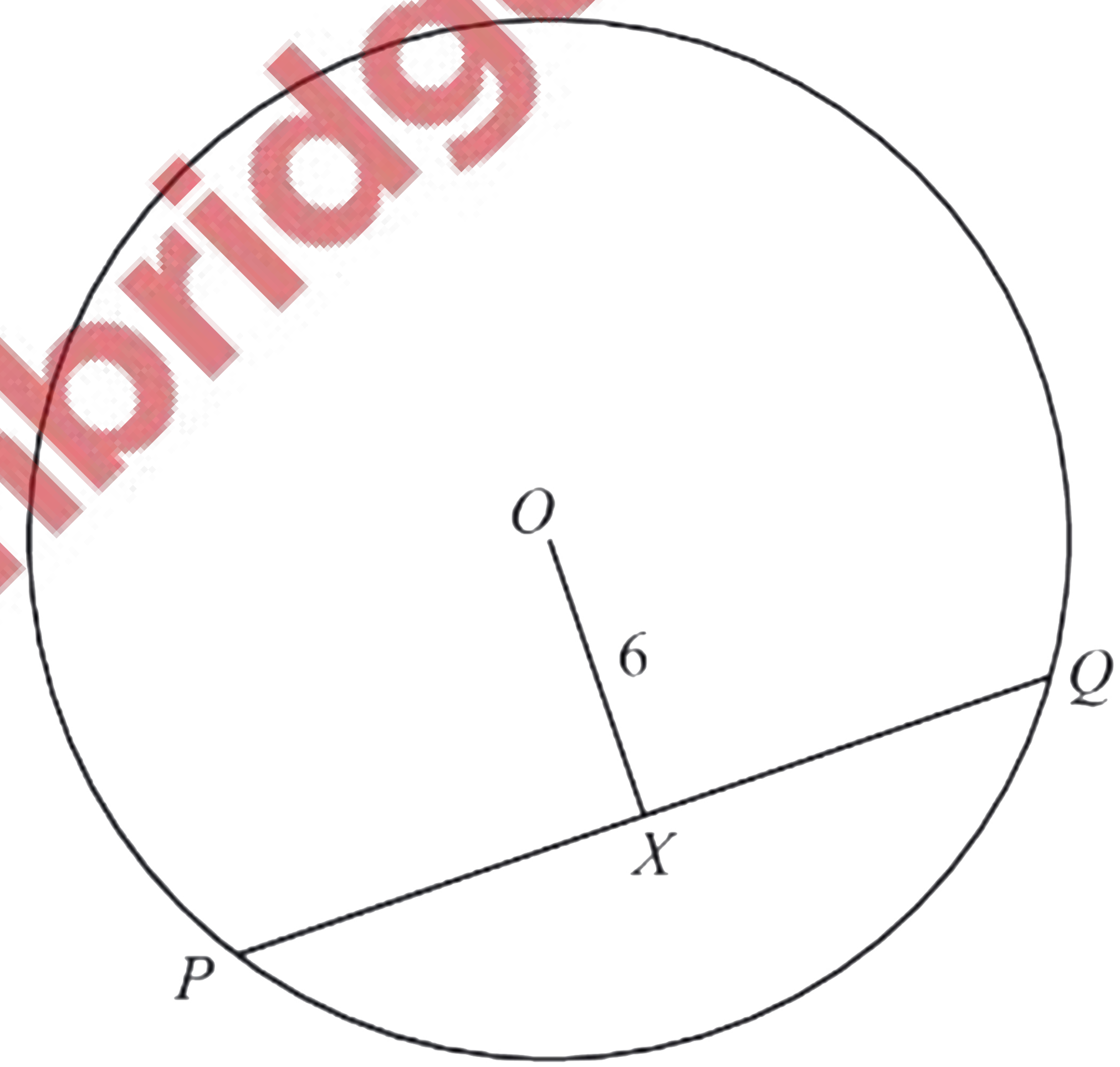
B, C and D are points on the circle, centre O .
 BA and DA are tangents to the circle at B and D .

- (a) Show that triangles ABO and ADO are congruent. [3]
- (b) What type of special quadrilateral is $ABOD$? [1]
- (c) Angle $BCD = 68^\circ$. Find angle BAD . [2]



5. M/J 13/P11/Q5

PQ is a chord of the circle, centre O .
 X is the midpoint of PQ .
 $OX = 6$ cm and the radius of the circle is 10 cm.
 Calculate PQ . [2]



6. M/J 13/P11/Q11

Choose a quadrilateral from the list to complete each statement.

 Kite	 Parallelogram	Rectangle	Rhombus	Square	Trapezium
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- (a) A has four equal sides and four angles of 90° . [1]
- (b) A has just one pair of parallel sides. [1]
- (c) A has just one pair of opposite angles equal and its diagonals bisect at 90° . [1]

7. M/J 13/P11/Q14

A , B and T are points on a circle, centre O .
 AOD is a straight line and DT is a tangent to the circle at T .

$\hat{T}AO = 32^\circ$

Find

(a) $\hat{A}TO$,

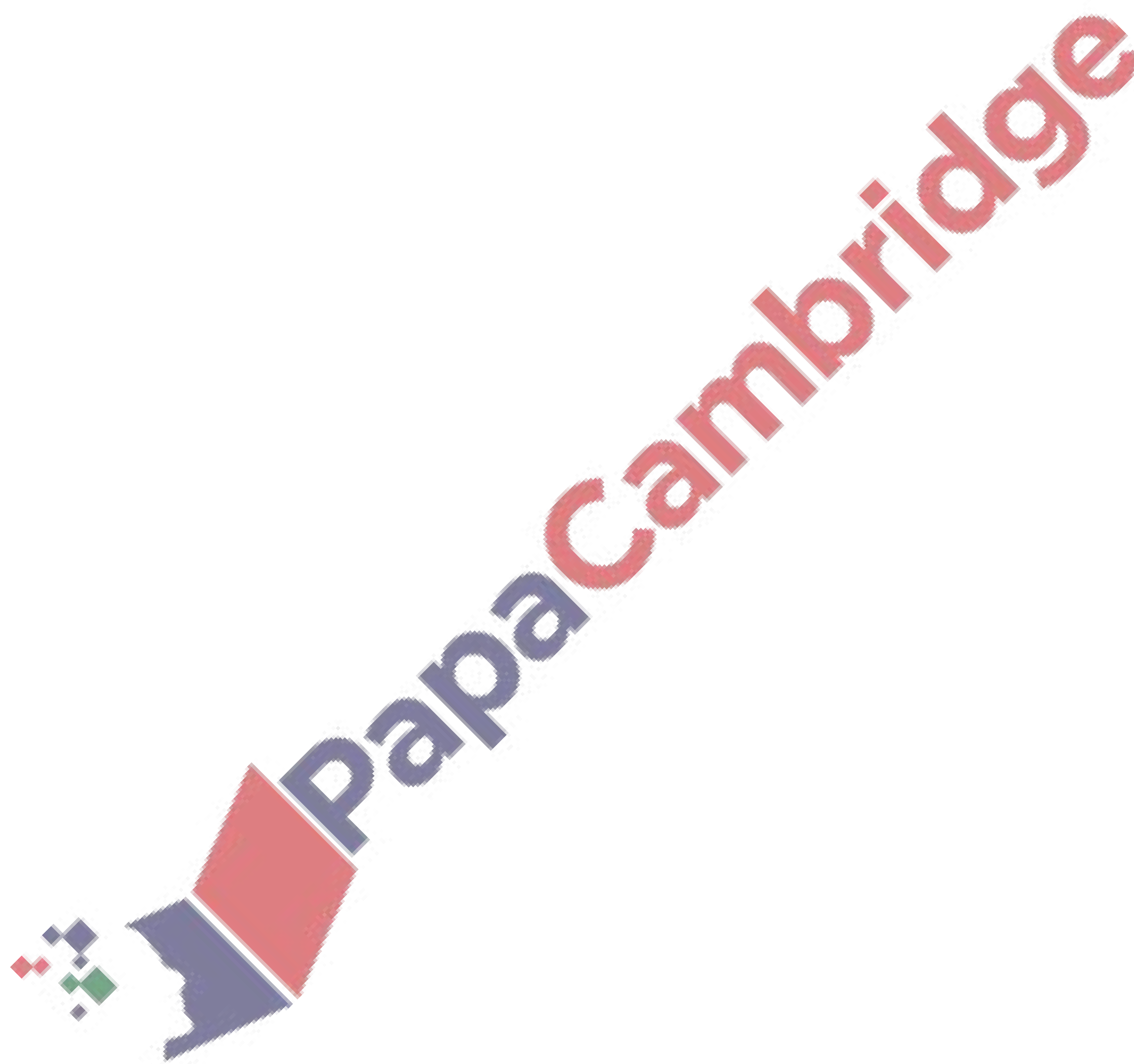
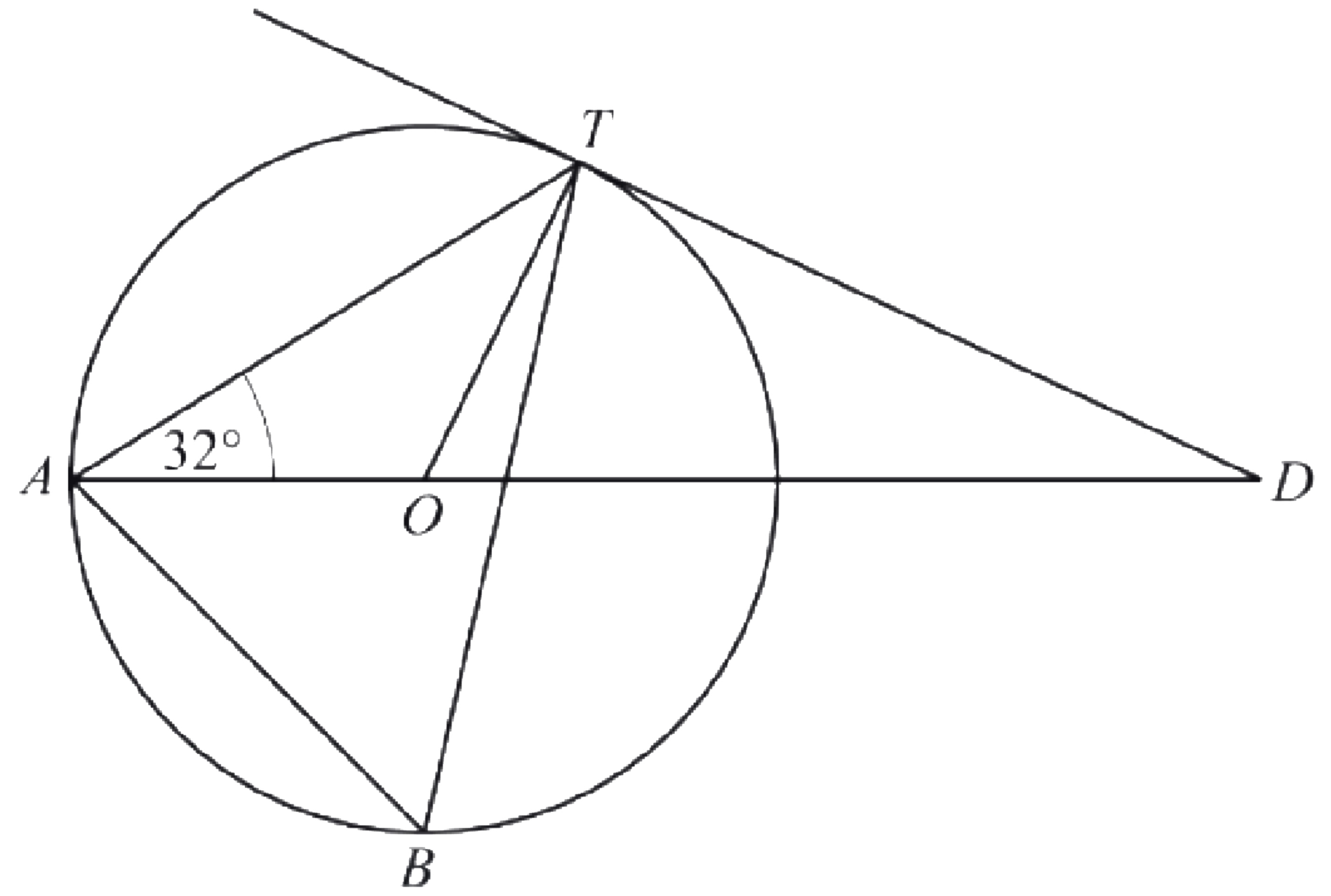
(b) $\hat{T}DO$,

(c) $\hat{A}BT$.

[1]

[1]

[1]



Answers Section

- | | |
|--|---|
| 1. O/N 16/P12/Q5 | |
| (a) 41° | 1 |
| (b) 245° | 1 |
| 2. O/N 16/P12/Q24 | |
| (a) 68 | 1 |
| (b) 146 | 1 |
| (c) 34; or FT <i>their</i> (a)/2; or
FT $180 - \textit{their}(b)$ | 1 |
| (d) 56 | 1 |
| 3. O/N 14/P11/Q9 | |
| 8 WWW | 3 |
| 4. M/J 13/P12/Q23 | |
| (a) Congruency shown | 3 |
| (b) Kite or Cyclic Quadrilateral | 1 |
| (c) 44 | 2 |
| 5. M/J 13/P11/Q5 | |
| 16 | 2 |
| 6. M/J 13/P11/Q11 | |
| (a) square | 1 |
| (b) trapezium | 1 |
| (c) kite | 1 |
| 7. M/J 13/P11/Q14 | |
| (a) 32° | 1 |
| (b) 26° | 1 |
| (c) 58° | 1 |

