national5maths.co.uk

National 5 Mathematics

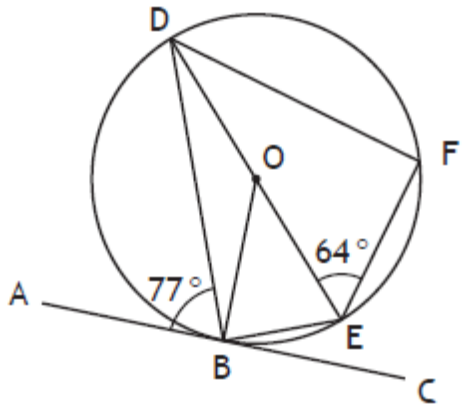
Exam Questions by Topic

Angles inside Shapes

Step-by-step worked solutions to these questions in the N5 Maths Study Pack

2015 N5 Past Paper P1, Q3

1.



AC is a tangent to the circle, centre O, with point of contact B.

DE is a diameter of the circle and F is a point on the circumference.

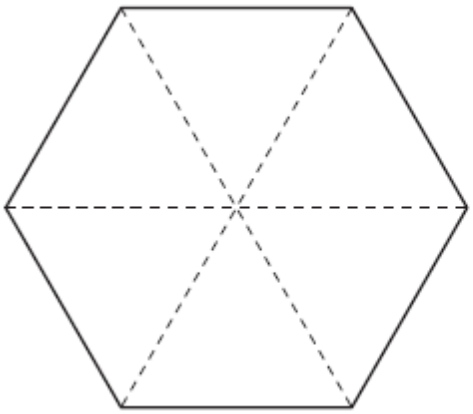
Angle ABD is 77° and angle DEF is 64°.

Calculate the size of angle BDF. (3 marks)

2015 N5 Past Paper P2, Q11

2. The top of a table is in the shape of a rectangular hexagon.

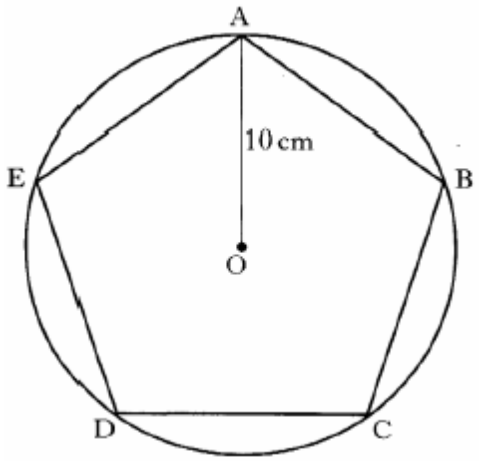
The three diagonals of the hexagon which are shown as dotted line in the diagram below each have length 40 centimeters.



Calculate the area of the top of the table (4 marks)

N5 Practice Paper A, P2, Q7

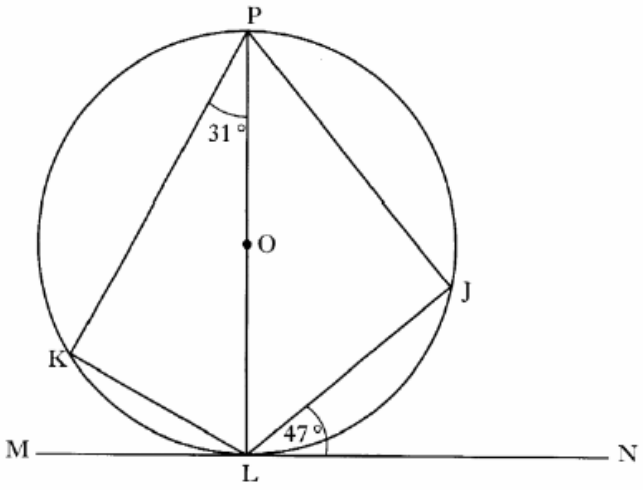
3.



A regular pentagon ABCDE is drawn inside a circle, centre 0, with radius 10 centimetres. Calculate the area of the regular pentagon. (5 marks)

N5 Practice Paper C, P2, Q2

4.



The tangent, MN, touches the circle, centre 0, at L.

Angle JLN $= 47°$

Angle KPL $= 31°$

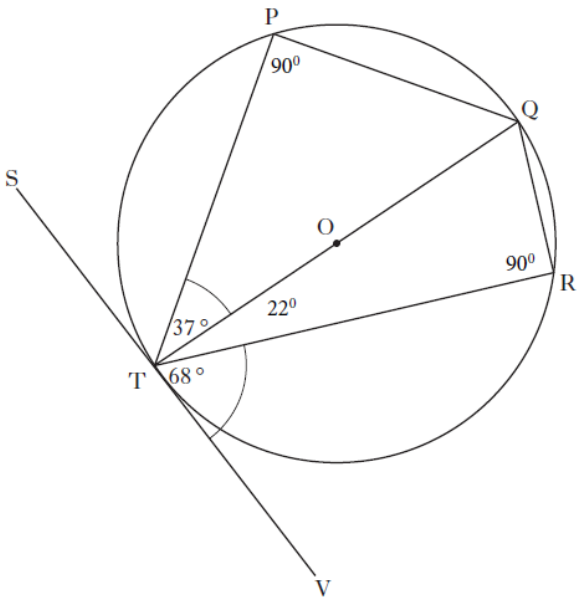
Find the size of angle JLK (3 marks)

N5 Practice Paper F, P1, Q9

5. The tangent SV touches the circle, centre 0, at T.

- Angle PTQ is 37°
- Angle VTR is 68°

Calculate the size of angle PQR



(3 marks)