Maths.scot

National 5 Maths Angles in Shapes
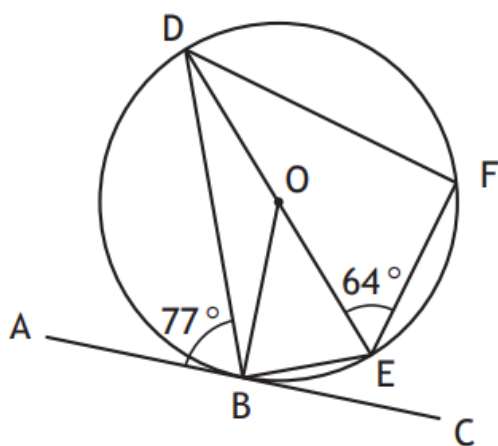
SQA past paper and specimen paper questions and answers by topic

BE GREEN
KEEP IT ON
THE SCREEN

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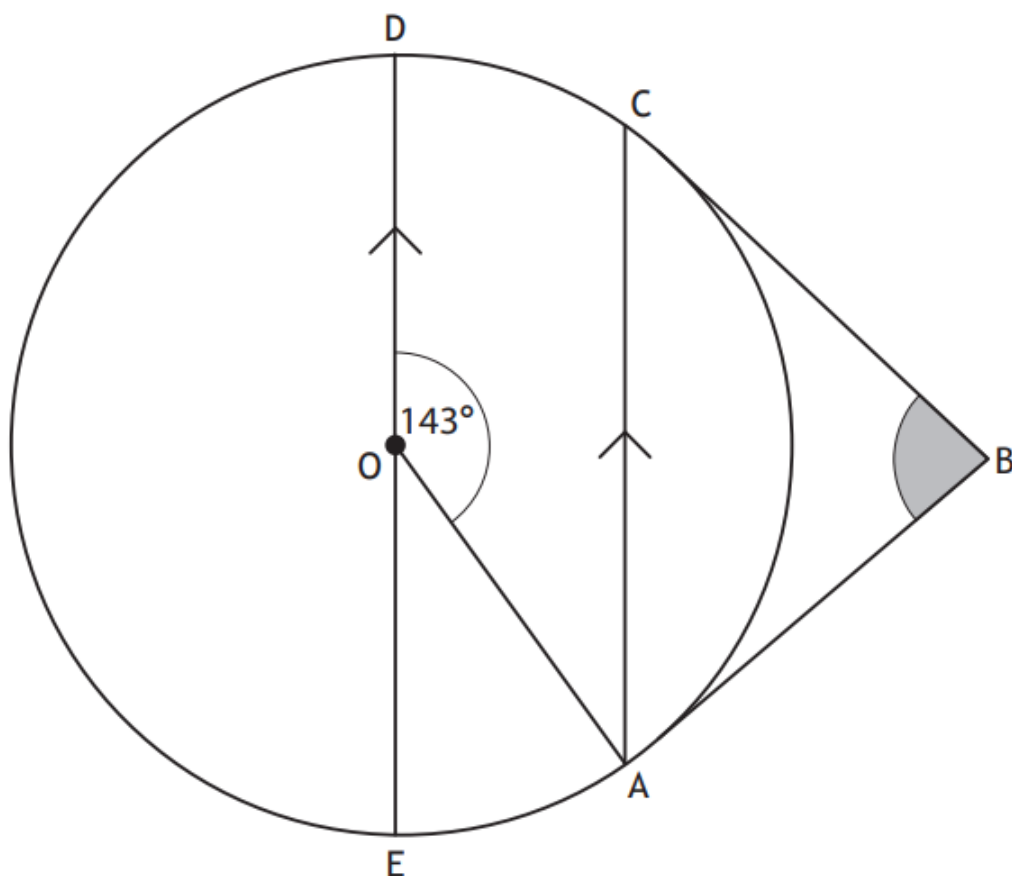
Angle ABD is 77° and angle DEF is 64°.

Calculate the size of angle BDF.   **3**

Answer:

39°

The diagram below shows a circle, centre O.

- AB and CB are tangents to the circle.
- AC and ED are parallel.
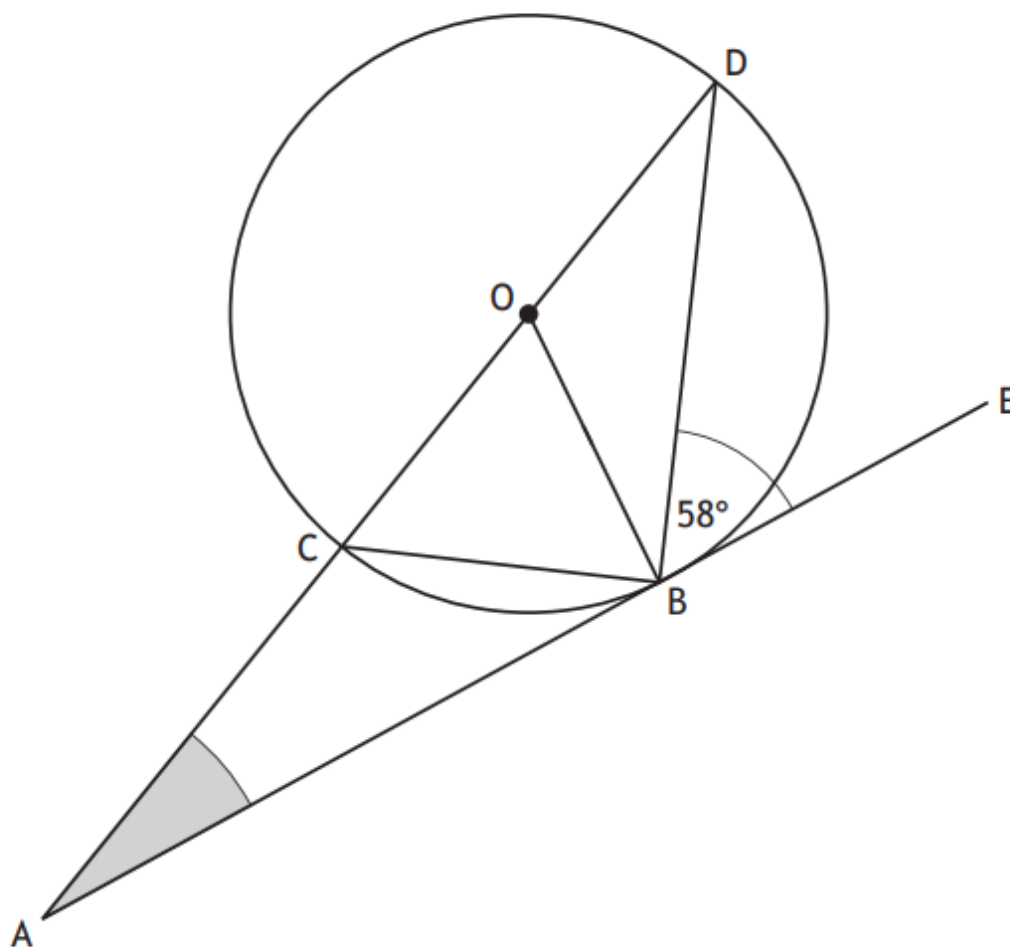- Angle AOD is 143°.

Calculate the size of angle ABC. **3**

Answer:

74°

In the diagram shown below:

- ABE is a tangent to the circle centre O

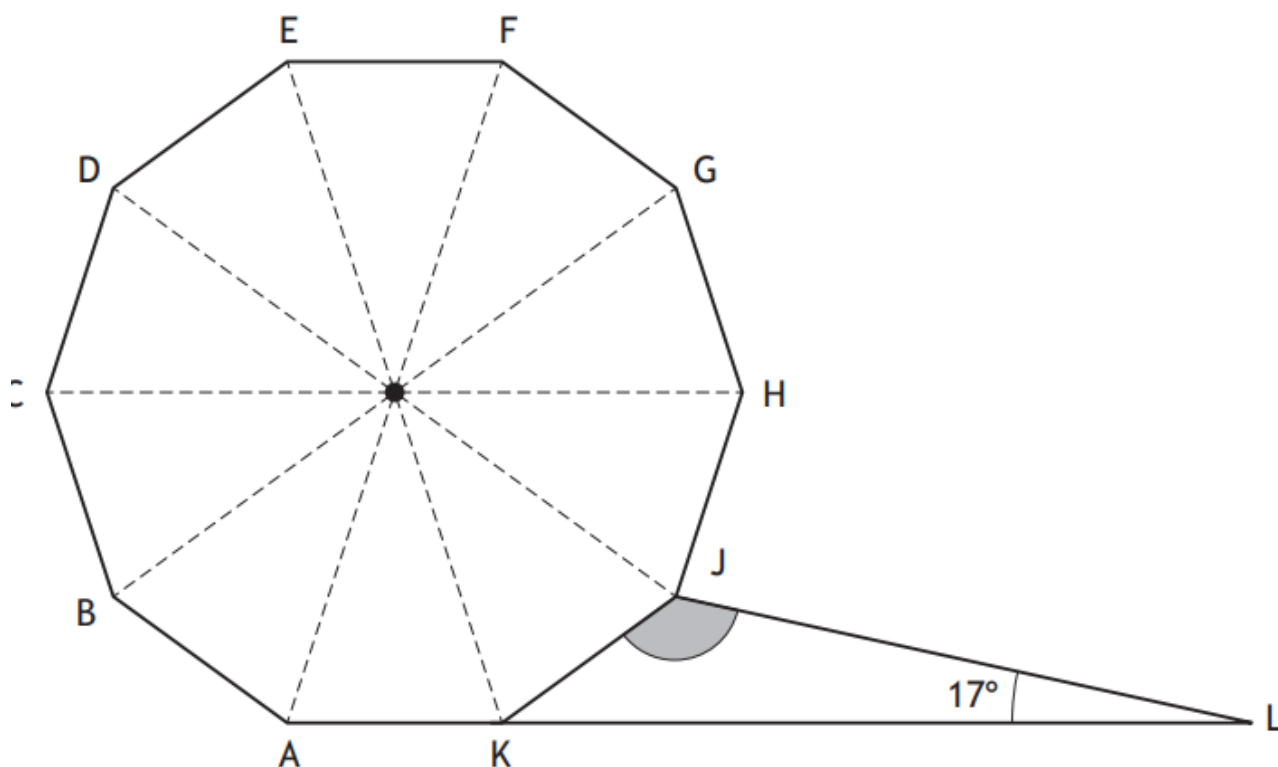- Angle DBE is 58°

Calculate the size of angle CAB. 3

Answer:

26°

In the diagram shown below, ABCDEFGHJK is a regular decagon.

- Angle KLJ is 17°.
- AKL is a straight line.
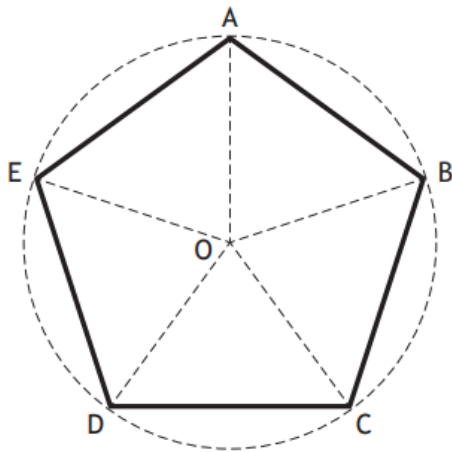

Calculate the size of shaded angle KJL. **2**

Answer:
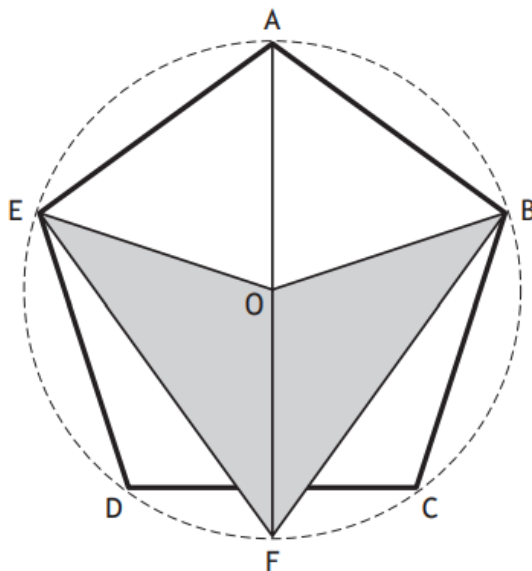
127°

Pam is designing a company logo.

She starts by drawing a regular pentagon ABCDE.

The vertices of the pentagon lie on the circumference of a circle with centre O.

She then adds to the design as shown in the diagram below.

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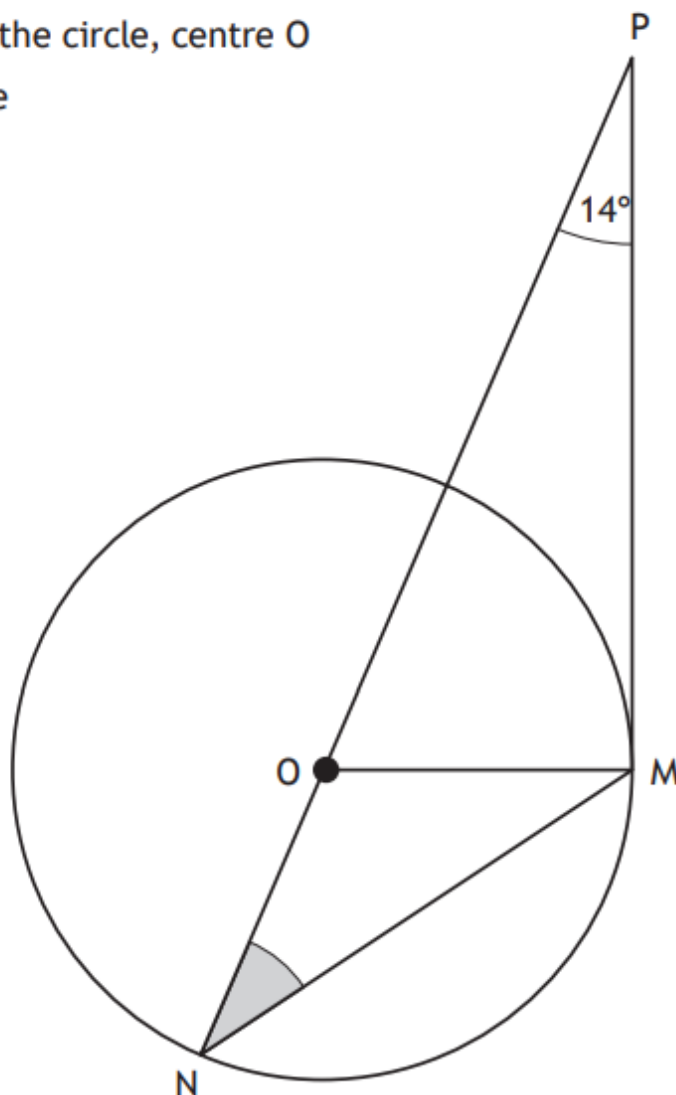

AF is a diameter of the circle.

Calculate the size of angle OFB.   **3**

Answer: 36°

In the diagram shown below

- PM is a tangent to the circle, centre O
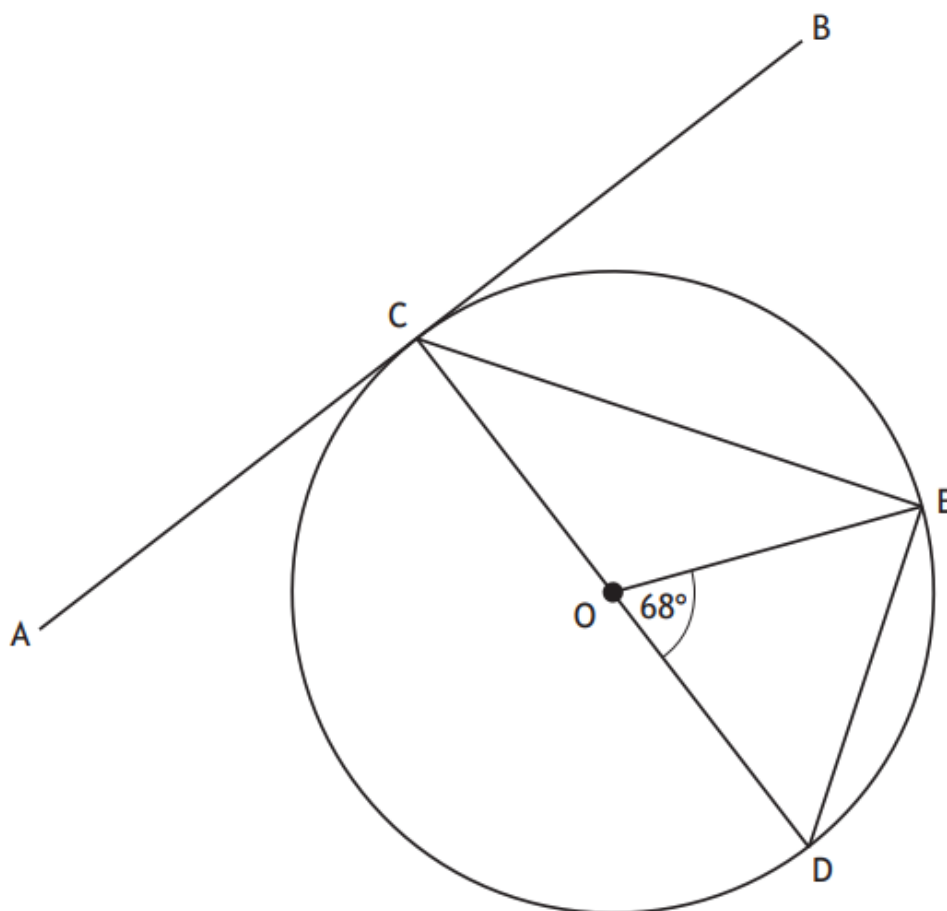- PN is a straight line
- angle OPM is 14°.

P

14°

O

M

N

Calculate the size of shaded angle ONM.

2

Answer:

38°

The diagram below shows a circle with centre O.

AB is a tangent to the circle at the point C.
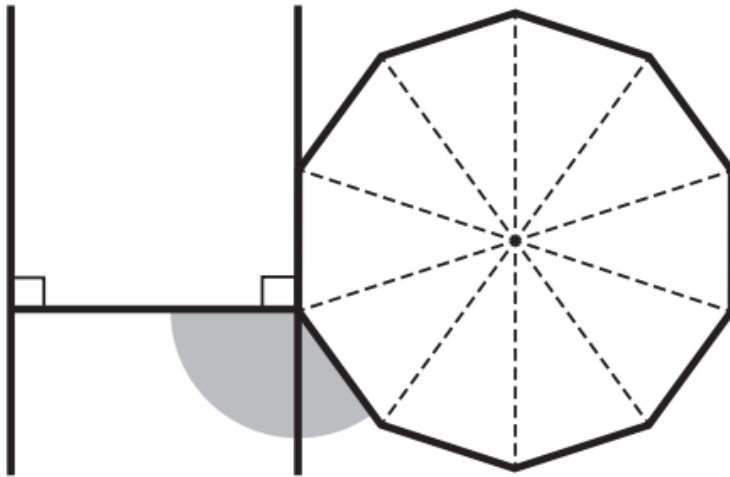
CD is a diameter of the circle.

Angle EOD is 68°.

Calculate the size of angle ACE. **3**

Answer:

124°

A logo consists of an H shape and a regular decagon.

The diagram represents the logo.

Calculate the size of the shaded angle. **2**

Answer:

126°