

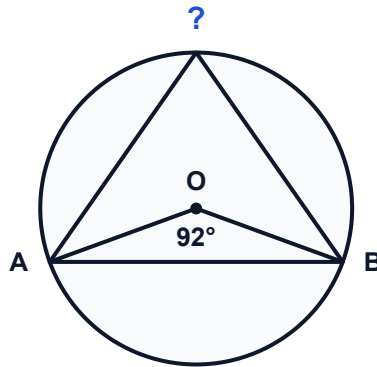
Circle Theorems & Bearings

Topic focus paper · Calculator allowed · 10 questions · 20 marks · seed 2026

1. Circle theorems

2 marks

A, B and C are points on a circle, centre O. Angle $AOB = 92^\circ$. Work out the size of angle ACB. Give a reason for your answer.



Answer: 46° (the angle at the centre is twice the angle at the circumference)

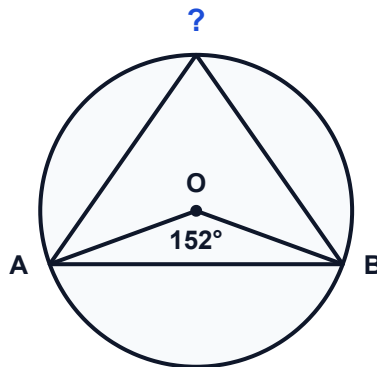
M1 The angle at the centre is twice the angle at the circumference (same arc AB)

A1 46°

2. Circle theorems

2 marks

A, B and C are points on a circle, centre O. Angle $AOB = 152^\circ$. Work out the size of angle ACB. Give a reason for your answer.



Answer: 76° (the angle at the centre is twice the angle at the circumference)

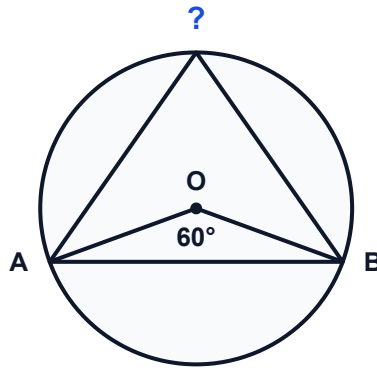
M1 The angle at the centre is twice the angle at the circumference (same arc AB)

A1 76°

3. Circle theorems

2 marks

A, B and C are points on a circle, centre O. Angle $ACB = 30^\circ$. Work out the size of angle AOB. Give a reason for your answer.



Answer: 60° (the angle at the centre is twice the angle at the circumference)

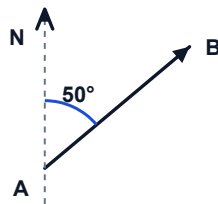
M1 The angle at the centre is twice the angle at the circumference (same arc AB)

A1 60°

4. Bearings

2 marks

The bearing of B from A is 050° . Work out the bearing of A from B. Give your answer as a three-figure bearing.



Answer: 230°

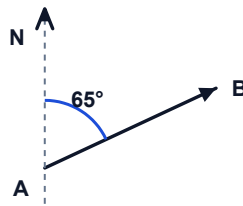
M1 Add 180° : $050^\circ + 180^\circ = 230^\circ$

A1 230°

5. Bearings

2 marks

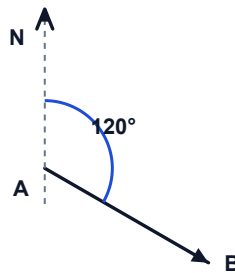
The bearing of B from A is 065° . Work out the bearing of A from B. Give your answer as a three-figure bearing.

**Answer:** 245° **M1** Add 180° : $065^\circ + 180^\circ = 245^\circ$ **A1** 245°

6. Bearings

2 marks

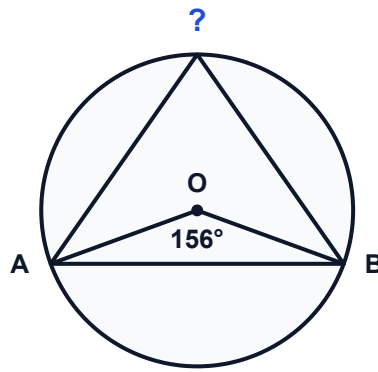
The bearing of B from A is 120° . Work out the bearing of A from B. Give your answer as a three-figure bearing.

**Answer:** 300° **M1** Add 180° : $120^\circ + 180^\circ = 300^\circ$ **A1** 300°

7. **Circle theorems**

2 marks

A, B and C are points on a circle, centre O. Angle $ACB = 78^\circ$. Work out the size of angle AOB. Give a reason for your answer.



Answer: 156° (the angle at the centre is twice the angle at the circumference)

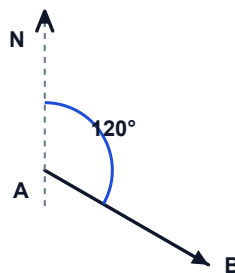
M1 The angle at the centre is twice the angle at the circumference (same arc AB)

A1 156°

8. **Bearings**

2 marks

The bearing of B from A is 120° . Work out the bearing of A from B. Give your answer as a three-figure bearing.



Answer: 300°

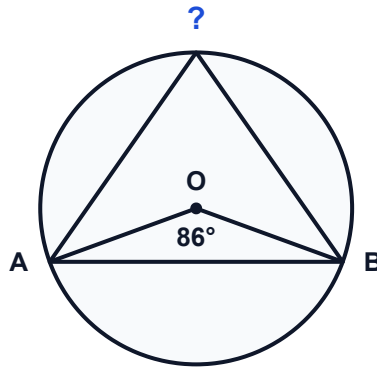
M1 Add 180° : $120^\circ + 180^\circ = 300^\circ$

A1 300°

9. **Circle theorems**

2 marks

A, B and C are points on a circle, centre O. Angle $AOB = 86^\circ$. Work out the size of angle ACB. Give a reason for your answer.



Answer: 43° (the angle at the centre is twice the angle at the circumference)

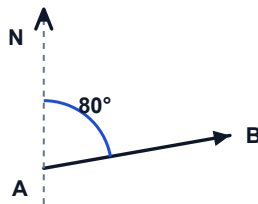
M1 The angle at the centre is twice the angle at the circumference (same arc AB)

A1 43°

10. **Bearings**

2 marks

The bearing of B from A is 080° . Work out the bearing of A from B. Give your answer as a three-figure bearing.



Answer: 260°

M1 Add 180° : $080^\circ + 180^\circ = 260^\circ$

A1 260°