

The diagram shows a sector OBAC of a circle with centre O and radius $10 \, \text{cm}$. The point P lies on OC and BP is perpendicular to OC. Angle $AOC = \frac{1}{6}\pi$ and the length of the arc AB is $2 \, \text{cm}$.

| (a) | Find the angle <i>BOC</i> . | [2] |
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