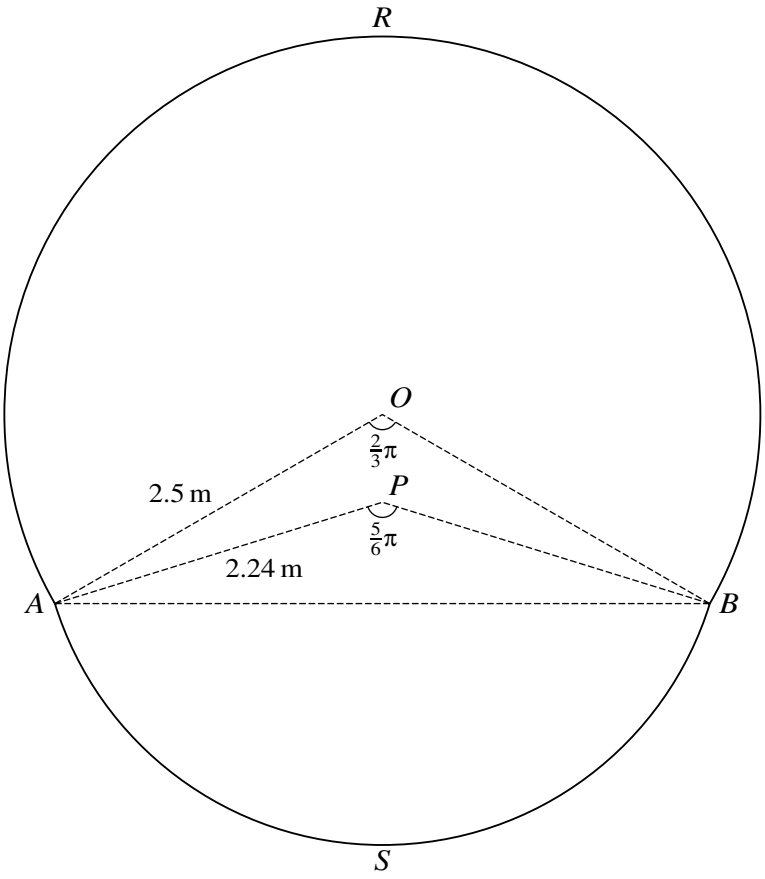
10



The diagram shows a cross-section $RASB$ of the body of an aircraft. The cross-section consists of a sector $OARB$ of a circle of radius 2.5 m, with centre O, a sector $PASB$ of another circle of radius 2.24 m with centre P and a quadrilateral $OAPB$. Angle $AOB = \frac{2}{3}\pi$ and angle $APB = \frac{5}{6}\pi$.

(a) Find the perimeter of the cross-section $RASB$, giving your answer correct to 2 decimal places. [3]

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(b) Find the difference in area of the two triangles AOB and APB, giving your answer correct to 2 decimal places. [2]

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(c) Find the area of the cross-section $RASB$, giving your answer correct to 1 decimal place. [3]

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