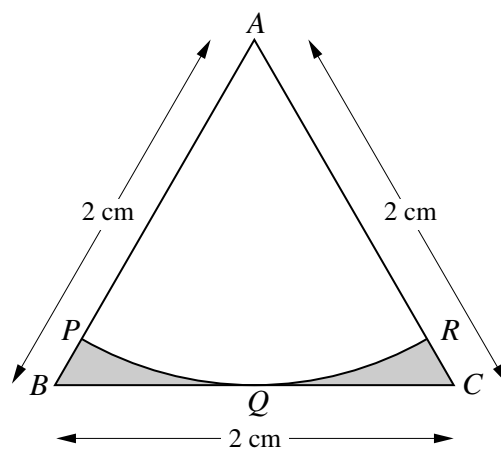


3



In the diagram, ABC is an equilateral triangle of side 2 cm . The mid-point of BC is Q . An arc of a circle with centre A touches BC at Q , and meets AB at P and AC at R . Find the total area of the shaded regions, giving your answer in terms of π and $\sqrt{3}$. [5]