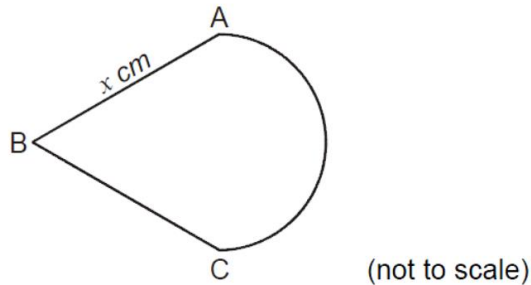



Measures

2005

- 21** In the shape shown below, A, B and C are the vertices of an equilateral triangle, side length x cm. The arc AC forms a semicircle.



Which of the following alternatives is a correct expression for the area, in cm^2 , of the shape?

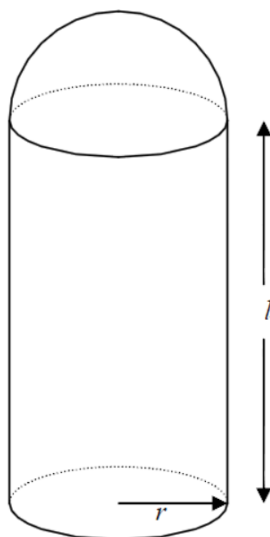
- A** $\frac{x^2(2\sqrt{3} + \pi)}{8}$
- B** $\frac{x^2(\sqrt{3} + \pi)}{4}$
- C** $\frac{x^2(2 + \pi)}{8}$
- D** $\frac{x^2(4\sqrt{3} + \pi)}{8}$



Measures

2007

- 24 The solid shown below consists of a cylinder topped by a hemisphere of the same radius.



Which one of the following correctly gives the volume of this solid?

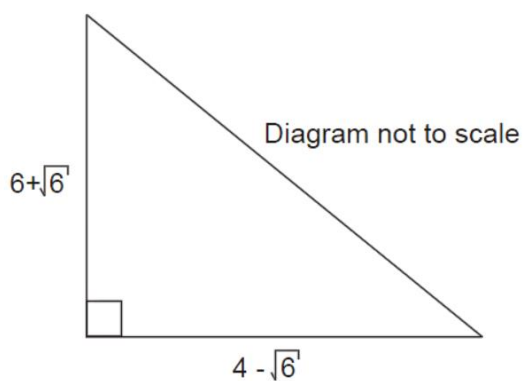
- A $\frac{\pi \cdot^2}{3}(2r + 3l)$
- B $\frac{\pi \cdot^2}{3}(4r + 3l)$
- C $\frac{\pi \cdot^3}{3}(2 + 3l)$
- D $\frac{\pi \cdot^2}{3}(2r + l)$



Measures

2008

16 A right-angled triangle is shown.



Calculate the area of the triangle.

- A $9 - \sqrt{6}$
- B $9 - \sqrt{3}$
- C $\sqrt{52 + 4\sqrt{6}}$
- D $9 + \sqrt{6}$
- E $15 + 5\sqrt{6}$