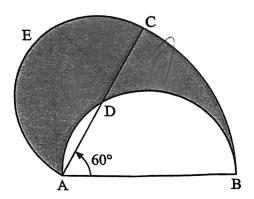
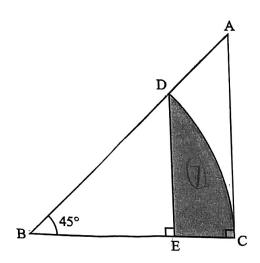
Semicircle ADB with diameter 6 cm is being rotated 60° about A to form the semicircle AEC with diameter AC as shown. Find the area of the shaded region, leaving your answer in terms of  $\pi$ .

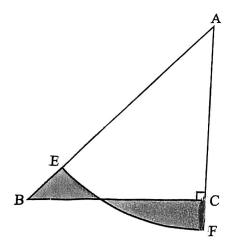


21. DBC is a sector (part of a circle) with center B and radius 7 cm. Find the area of the shaded region.

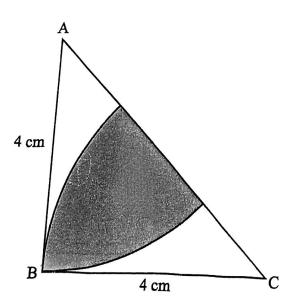
Take 
$$\pi = \frac{22}{7}$$



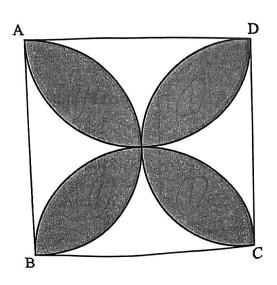
22. Triangle ABC is a right-angled isosceles triangle with BC = 10 cm. AEF is a sector (part of a circle) with center A. The two shaded regions have the same area. Find the area of the whole circle with center A and radius AE.



23. The right-angled isosceles triangle ABC consists of two overlapping sectors (parts of a circle) with centers at A and C. Find the area of the shaded part, leaving your answer in terms of  $\pi$ .



ABCD is a square of length 10 cm. Find the total area of the shaded parts, leaving your answer in terms of  $\pi$ .



25. ABCD is a square with BD = AC = 20 cm. Find the total area of the shaded parts, leaving your answer in terms of  $\pi$ .

