Finding area of a circle when only its circumference is given

This worksheet is to find the area of a circle when its circumference is given. We will do the task by taking an example followed by the similar problems for kids to solve.

1) Circumference of a circle is 42 cm. What is its area?

Solution: Given; Circumference "C" of the circle = 42 cm. Consider "d" is the diameter of the circle. Then we can find the diameter of the circle from its circumference as shown:
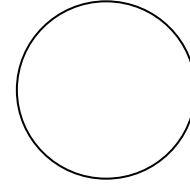
d = C ÷ π = 42 ÷ 3.14 = 13.38 cm

Now radius r = d ÷ 2 = 13.38 ÷ 2 = 6.69 cm

Then the area "A" of the circle with radius r = 6.69 cm is calculate below

A = π r² = 3.14 x 6.69² = 3.14 x 44.76

Hence Area A = 140.55 cm²

circumference = 42 cm

2) Circumference of a circle is 7 inches. Find its area.

3) Find the area of a circle with circumference of 57 meters.

4) Find the area of a circle with circumference of 35.5 yards.

5) Mrs. Taylor has circular garden and the length of the fencing around the garden is 91 feet. What is the area of Mrs. Taylor's garden?