Q(1-3) Find the circumferences of the circles from their radii given below.

(1) 56 cm
(2) 7.7 cm
(3) 2.8 cm

ANSWER:

(1) Radius of the circle is 56 cm.
Circumference of a circle = $2\pi r$
Circumference = $2 \times \pi \times 56$ cm (Taking $\pi=227$)
= 352 cm
∴ Circumference of the circle is 352 cm.

(2) Radius of the circle is 7.7 cm.
Circumference of a circle = $2\pi r$
Circumference = $2 \times \pi \times 7.7$ cm (Taking $\pi=22/7$)
= 48.4 cm
∴ Circumference of the circle is 48.4 cm.

(3) Radius of the circle is 2.8 m.
Circumference of a circle = $2\pi r$
Circumference = $2 \times \pi \times 2.8$ m (Taking $\pi=22/7$)
= 17.6 m
∴ Circumference of the circle is 17.6 m.

Q(4-6)From the given circumferences, find the radii and the diameters of the circles.

(4) 198 cm
(5) 616 cm
(6) 72.6 m

ANSWER:

(4) Circumference of the circle is 198 cm.
Circumference of a circle = 2π*r*
Circumference = 2 × π × *r*
198 = 2×(22/7)× r
or, r = 31.5 cm
or, d = 2 × *r*
= 63 cm
∴ Radius of the circle is 31.5 cm.
Diameter of the circle is 63 cm.

(5) Circumference of the circle is 616 cm.
Circumference of a circle = 2π*r*
Circumference = 2 × π × *r*
616 =2×(22/7)×r
or, r = 98 cm
or, d = 2 × *r*
= 196 cm
∴ Radius of the circle is 98 cm.
Diameter of the circle is 196 cm.

(6) Circumference of the circle is 72.6 m.
Circumference of a circle = 2π*r*
Circumference = 2 × π × *r*

72.6 =2×(22/7)×r
or, r = 11.55 m
or, d = 2 × *r*
= 23.1 m
∴ Radius of the circle is 11.55 m.
Diameter of the circle is 23.1 m.

Q(7-11)The radii of some circles are given below. Find their areas.

(7) 28 cm
(8) 5.6 m
(9) 7.7 m
(10) 6.3 m
(11) 35 cm

ANSWER:

(7) Radius of the circle is 28 cm.
Area = πr^2
= π × 28 cm × 28 cm
= 2464 sq cm
∴ Area of the circle is 2464 sq cm.

(8) Radius of the circle is 5.6 m.
Area = πr^2
= π × 5.6 m × 5.6 m
= 98.56 sq m
∴ Area of the circle is 98.56 sq m.

(9) Radius of the circle is 7.7 m.
Area = πr^2
= π × 7.7 m × 7.7 m
= 186.34 sq m
∴ Area of the circle is 186.34 sq m.

(10) Radius of the circle is 6.3 m.
Area = πr^2
= π × 6.3 m × 6.3 m
= 124.74 sq m
∴ Area of the circle is 124.74 sq m.

(11) Radius of the circle is 35 cm.
Area = πr^2
= π × 35 cm × 35 cm
= 3850 sq cm
∴ Area of the circle is 3850 sq cm.