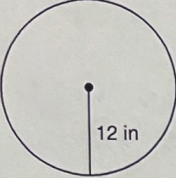
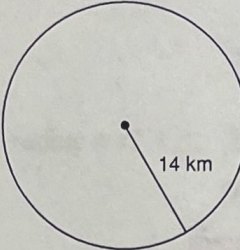
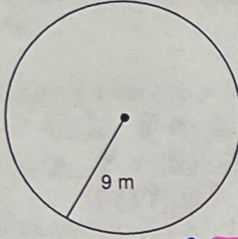
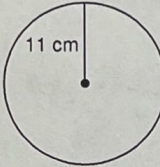


Circumference and Area of Circles


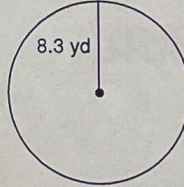
Find the area of each. Use your calculator. Round your answer to the nearest tenth.

- 1)  $A = \pi \cdot r \cdot r$
 $12 \cdot 12 \cdot \pi$
 144π
 $\approx 144(3.14) = 452.16 \text{ in}^2$
- 2)  $14 \cdot 14 \cdot \pi$
 196π
 $\approx 615.44 \text{ km}^2$

- 3)  $9 \cdot 9 \cdot \pi$
 81π
 $\approx 254.34 \text{ m}^2$
- 4)  $11 \cdot 11 \cdot \pi$
 121π
 $\approx 379.94 \text{ cm}^2$

- 5) radius = 2.6 in $2.6 \cdot 2.6 \cdot \pi$
 6.76π
 $\approx 21.23 \text{ in}^2$
- 6) radius = 34.1 in $34.1(34.1) \pi$
 1162.81π
 $\approx 3658.22 \text{ in}^2$
- 7) radius = 13.2 km $13.2(13.2) \pi$
 174.24π
 $\approx 547.11 \text{ km}^2$
- 8) radius = 29.9 km $29.9(29.9) \pi$
 894.01π
 $\approx 2807.19 \text{ km}^2$

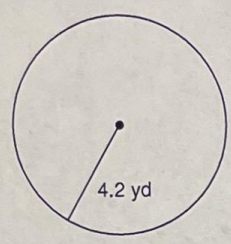
Find the circumference of each circle. Use your calculator. Round your answer to the nearest tenth.

- 9)  $2(8) \pi$
 16π
 50.24 mi
- 10)  $2(8.3) \pi$
 16.6π
 52.124 yds

$$C = 2r\pi \text{ - or -}$$

$$C = \pi d$$

11)

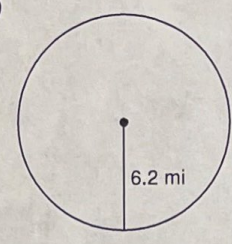


$$C = 2(4.2)\pi$$

$$= 8.4\pi$$

$$\approx 26.376 \text{ yd}$$

12)



$$C = 2(6.2)\pi$$

$$= 12.4\pi$$

$$\approx 38.936 \text{ mi}$$

13) radius = 5.2 ft

$$2(5.2)\pi$$

$$= 10.4\pi$$

$$\approx 32.656 \text{ ft}$$

14) radius = 11.1 ft

$$2(11.1)\pi$$

$$= 22.2\pi$$

$$\approx 69.708 \text{ ft}$$

15) radius = 9.5 in

$$2(9.5)\pi$$

$$= 19\pi \approx 59.66 \text{ in}$$

16) radius = 9.3 in

$$2(9.3)\pi$$

$$= 18.6\pi \approx 58.404 \text{ in}$$

Find the radius of each circle. Round your answer to the nearest tenth.

17) circumference = 62.8 mi

$$62.8 = 2\pi r$$

$$62.8 = 6.28r$$

$$10 = r$$

18) circumference = 69.1 yd

$$\frac{69.1}{6.28} = 11 \text{ yd}$$

19) circumference = 12.6 yd

$$2 \text{ yd}$$

20) circumference = 25.1 ft

$$4 \text{ ft}$$

Find the diameter of each circle. Round your answer to the nearest tenth.

21) area = 201.1 in²

22) area = 78.5 ft²

Find the circumference of each circle.

23) area = 64π mi²

24) area = 16π in²

Find the area of each.

25) circumference = 6π yd

$$9\pi \text{ yd}^2$$

26) circumference = 22π in

$$121\pi \text{ in}^2$$

Critical thinking question:

27) Find the radius of a circle so that its area and circumference have the same value.