

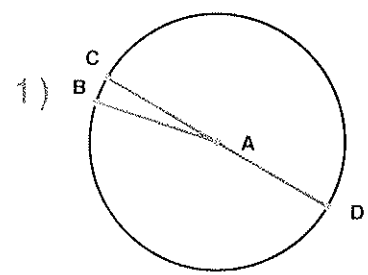
Name : _____

Score : _____

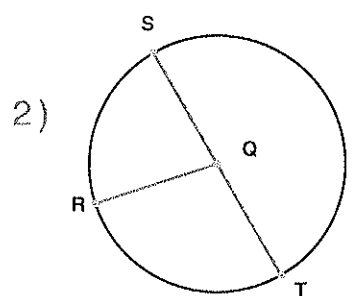
Teacher : _____

Date : _____

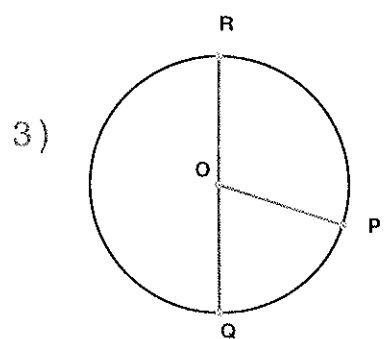
Solve the missing elements for each problem. Use 3.14 for π .



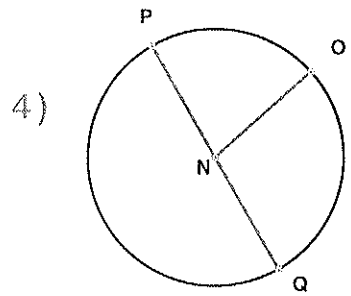
Radius: _____
 Diameter: 22 inches
 Circumference: _____
 Area: _____



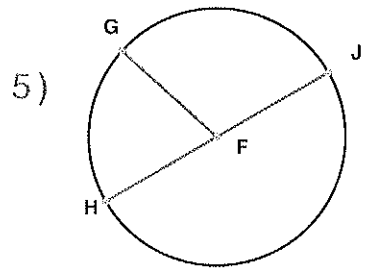
Radius: 15 ft
 Diameter: _____
 Circumference: _____
 Area: _____



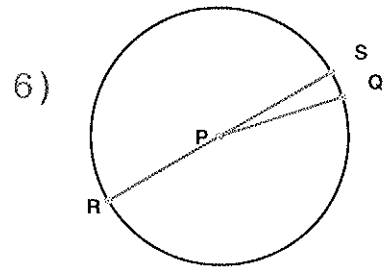
Radius: 20 yards
 Diameter: _____
 Circumference: _____
 Area: _____



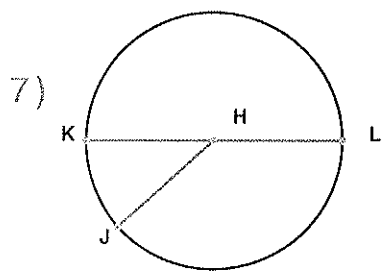
Radius: 13 cm
 Diameter: _____
 Circumference: _____
 Area: _____



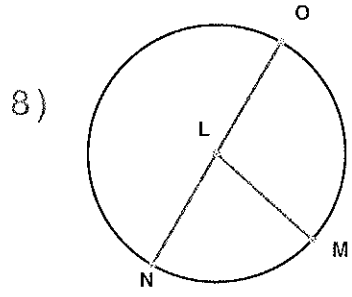
Radius: _____
 Diameter: 14 inches
 Circumference: _____
 Area: _____



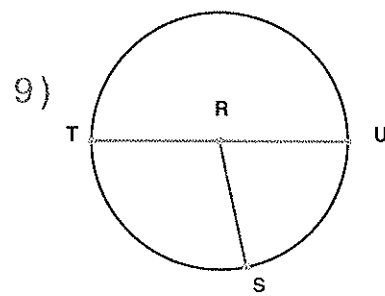
Radius: 3 ft
 Diameter: _____
 Circumference: _____
 Area: _____



Radius: _____
 Diameter: 10 yards
 Circumference: _____
 Area: _____



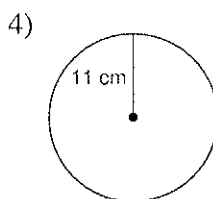
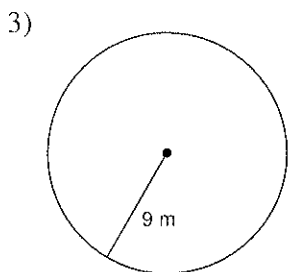
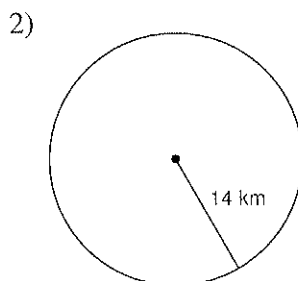
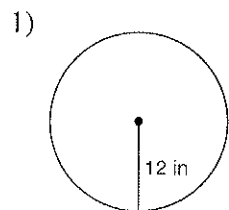
Radius: _____
 Diameter: 4 cm
 Circumference: _____
 Area: _____



Radius: 14 inches
 Diameter: _____
 Circumference: _____
 Area: _____

Circumference and Area of Circles

Find the area of each. Use your calculator's value of π . Round your answer to the nearest tenth.



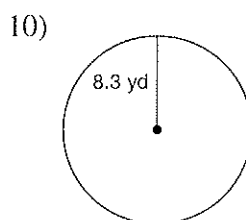
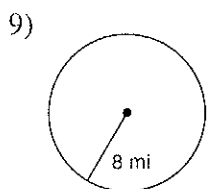
5) radius = 2.6 in

6) radius = 34.1 in

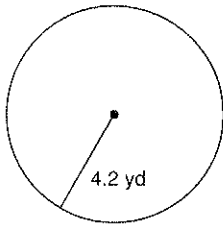
7) radius = 13.2 km

8) radius = 29.9 km

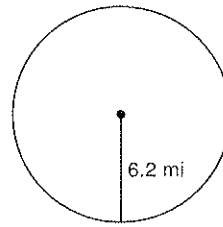
Find the circumference of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.



11)



12)



13) radius = 5.2 ft

14) radius = 11.1 ft

15) radius = 9.5 in

16) radius = 9.3 in

Find the radius of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

17) circumference = 62.8 mi

18) circumference = 69.1 yd

19) circumference = 12.6 yd

20) circumference = 25.1 ft

Find the diameter of each circle. Use your calculator's value of π . 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

26) circumference = 22π in

Critical thinking question:

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

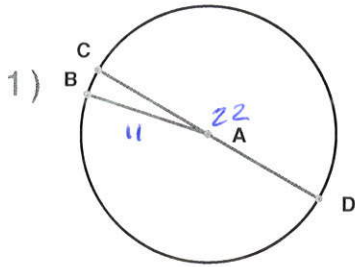
Name : Answer Key

Score : _____

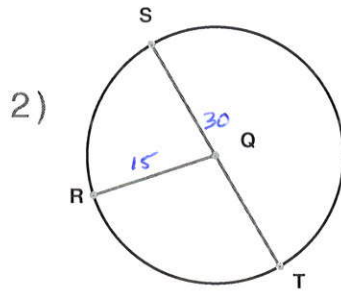
Teacher : _____

Date : _____

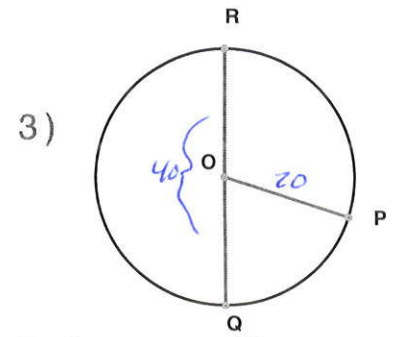
Solve the missing elements for each problem. Use 3.14 for π .



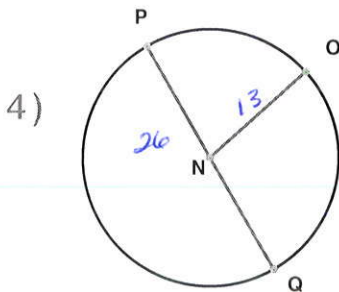
Radius: 11 in
Diameter: 22 inches
Circumference: 22π in
Area: 121π in²



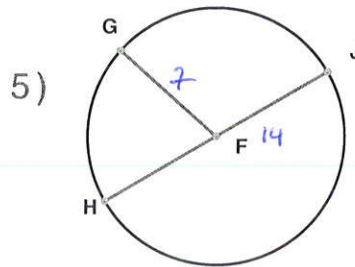
Radius: 15 ft
Diameter: 30 ft
Circumference: 30π ft
Area: 225π ft²



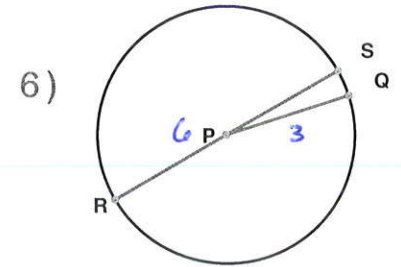
Radius: 20 yards
Diameter: 40 yd
Circumference: 40π yd
Area: 400π yd²



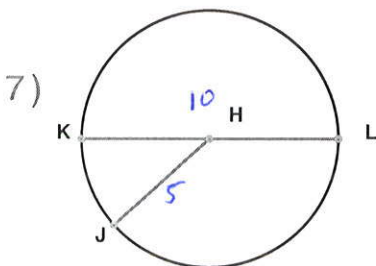
Radius: 13 cm
Diameter: 26 cm
Circumference: 26π cm
Area: 169π cm²



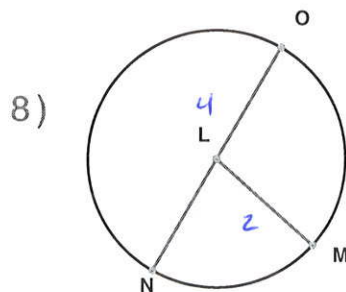
Radius: 7 in
Diameter: 14 inches
Circumference: 14π in
Area: 49π in²



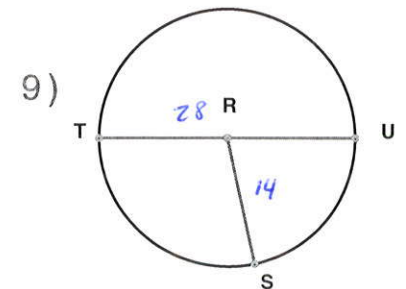
Radius: 3 ft
Diameter: 6 ft
Circumference: 6π ft
Area: 9π ft²



Radius: 5 yd
Diameter: 10 yards
Circumference: 10π yd
Area: 25π yd²



Radius: 2 cm
Diameter: 4 cm
Circumference: 4π cm
Area: 4π cm²



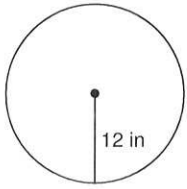
Radius: 14 inches
Diameter: 28 in
Circumference: 28π in
Area: 196π in²



Circumference and Area of Circles

Find the area of each. Use your calculator's value of π . Round your answer to the nearest tenth.

1)



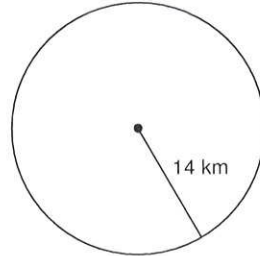
$$A = \pi r^2$$

$$A = \pi 12^2$$

$$A = \pi 144$$

$$A = 452.4 \text{ in}^2$$

2)



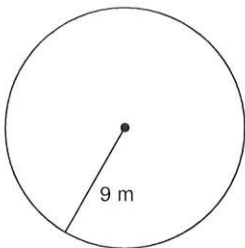
$$A = \pi r^2$$

$$A = \pi 14^2$$

$$A = 196\pi$$

$$A = 615.8 \text{ km}^2$$

3)



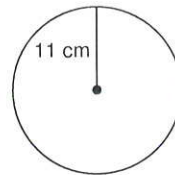
$$A = \pi r^2$$

$$A = \pi 9^2$$

$$A = 81\pi$$

$$A = 254.5 \text{ m}^2$$

4)



$$A = \pi r^2$$

$$A = \pi 11^2$$

$$A = \pi 121$$

$$A = 380.1 \text{ cm}^2$$

5) radius = 2.6 in

$$A = \pi r^2$$

$$A = \pi 2.6^2$$

$$A = 6.76\pi$$

$$A = 21.2 \text{ in}^2$$

6) radius = 34.1 in

$$A = \pi r^2$$

$$A = \pi 34.1^2$$

$$A = 1162.8\pi$$

$$A = 3653.1 \text{ in}^2$$

7) radius = 13.2 km

$$A = \pi r^2$$

$$A = \pi 13.2^2$$

$$A = 174.2\pi$$

$$A = 547.4 \text{ km}^2$$

8) radius = 29.9 km

$$A = \pi r^2$$

$$A = \pi 29.9^2$$

$$A = 894.01\pi$$

$$A = 2808.6 \text{ km}^2$$

Find the circumference of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

9)



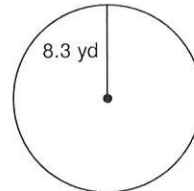
$$C = 2\pi r$$

$$C = 2\pi 8$$

$$C = 16\pi$$

$$C = 50.3 \text{ mi}$$

10)



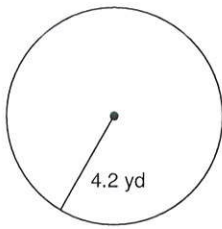
$$C = 2\pi r$$

$$C = 2\pi 8.3$$

$$C = 16.6\pi$$

$$C = 52.2 \text{ yd}$$

11)



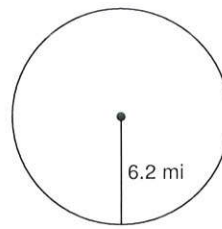
$$C = 2\pi r$$

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

$$C = 8.4\pi$$

$$C = 26.4 \text{ yd}$$

12)



$$C = 2\pi r$$

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

$$C = 12.4\pi$$

$$C = 39.0 \text{ mi}$$

13) radius = 5.2 ft

$$C = 2\pi r$$

$$C = 2\pi(5.2)$$

$$C = 10.4\pi$$

$$C = 32.7 \text{ ft}$$

14) radius = 11.1 ft

$$C = 2\pi r$$

$$C = 2\pi(11.1)$$

$$C = 22.2\pi$$

$$C = 69.7 \text{ ft}$$

15) radius = 9.5 in

$$C = 2\pi r$$

$$C = 2\pi(9.5)$$

$$C = 19\pi$$

$$C = 59.7 \text{ in}$$

16) radius = 9.3 in

$$C = 2\pi r$$

$$C = 2\pi(9.3)$$

$$C = 18.6\pi$$

$$C = 58.4 \text{ in}$$

Find the radius of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

17) circumference = 62.8 mi

$$C = 2\pi r$$

$$62.8 = 2\pi r$$

$$\frac{62.8}{2\pi} = \frac{2\pi r}{2\pi}$$

$$r = 10 \text{ mi}$$

18) circumference = 69.1 yd

$$C = 2\pi r$$

$$69.1 = 2\pi r$$

$$\frac{69.1}{2\pi} = \frac{2\pi r}{2\pi}$$

$$r = 11 \text{ yd}$$

19) circumference = 12.6 yd

$$C = 2\pi r$$

$$12.6 = 2\pi r$$

$$\frac{12.6}{2\pi} = \frac{2\pi r}{2\pi}$$

$$r = 2 \text{ yd}$$

20) circumference = 25.1 ft

$$C = 2\pi r$$

$$25.1 = 2\pi r$$

$$\frac{25.1}{2\pi} = \frac{2\pi r}{2\pi}$$

$$r = 4 \text{ ft}$$

Find the diameter of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

21) area = 201.1 in²

$$A = \pi r^2$$

$$201.1 = \pi r^2$$

$$\frac{201.1}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{64} = \sqrt{r^2}$$

$$r = 8 \times 2$$

$$D = 16 \text{ in}$$

22) area = 78.5 ft²

$$A = \pi r^2$$

$$78.5 = \pi r^2$$

$$\frac{78.5}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{25} = \sqrt{r^2}$$

$$r = 5 \times 2$$

$$D = 10 \text{ ft}$$

Find the circumference of each circle.

23) area = 64 π mi²

$$A = \pi r^2$$

$$64\pi = \pi r^2$$

$$\frac{64\pi}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{64} = \sqrt{r^2}$$

$$r = 8$$

$$C = 2\pi r$$

$$C = 2\pi(8)$$

$$C = 16\pi \text{ mi}$$

24) area = 16 π in²

$$A = \pi r^2$$

$$16\pi = \pi r^2$$

$$\frac{16\pi}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{16} = \sqrt{r^2}$$

$$r = 4$$

$$C = 2\pi r$$

$$C = 2\pi(4)$$

$$C = 8\pi \text{ in}$$

Find the area of each.

25) circumference = 6 π yd

$$C = 2\pi r$$

$$6\pi = 2\pi r$$

$$\frac{6\pi}{2\pi} = \frac{2\pi r}{2\pi}$$

$$r = 3$$

$$A = \pi r^2$$

$$A = \pi(3)^2$$

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

26) circumference = 22 π in

$$C = 2\pi r$$

$$22\pi = 2\pi r$$

$$\frac{22\pi}{2\pi} = \frac{2\pi r}{2\pi}$$

$$r = 11$$

$$A = \pi r^2$$

$$A = \pi(11)^2$$

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

Critical thinking question:

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

$$\frac{2\pi r}{\pi} = \frac{\pi r^2}{\pi}$$

$$\frac{2r}{r} = \frac{r}{r}$$

$$2 = r$$