Area & Circumference of Circle

Name _____

Score _____

AC:22

$\dfrac{22}{7}$

Find the area of each circle from the given circumference. (Use $\pi = \dfrac{22}{7}$ or 3.14)

1) Circumference = 31.4 ft

Circumference = 2πr

31.4 ft = 2 × 3.14 × r

31.4 ft = 6.28 × r ; **r = 5 ft**

Area = πr^2 = 3.14 × 5^2

     = 3.14 × 25 = **78.5 ft^2**

2) Circumference = 15.7 in

Area =

3) Circumference = 50.24 yd

Area =

4) Circumference = 43.96in

Area =

5) Circumference = 69.08 ft

Area =

6) Circumference = 94.2 yd

Area =

7) Circumference = 40.82 ft

Area =

Find the circumference of each circle from the given area. (Use $\pi = \dfrac{22}{7}$ or 3.14)

1) Area = 12.56 in^2

Area = πr^2

12.56 in^2 = 3.14 × r^2

4 in^2 = r^2 ; **r = 2 in**
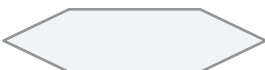
Circumference = 2πr

     = 2 × 3.14 × 2 = **12.56 in**

2) Area = 314 yd^2

Circumference =

3) Area = 176.625 ft^2

Circumference =

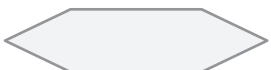4) Area = 1017.36 yd^2

Circumference =

5) Area = 50.24 ft^2

Circumference =

6) Area = 6.1544 in^2

Circumference =

7) Area = 1384.74 yd^2

Circumference =

Area & Circumference of Circle

Answer key

$\frac{22}{7}$

Find the area of each circle from the given circumference. (Use π = $\frac{22}{7}$ or 3.14)

1) Circumference = 31.4 ft

Circumference = 2πr

31.4 ft = 2 × 3.14 × r

31.4 ft = 6.28 × r ; **r = 5 ft**

Area = πr² = 3.14 × 5²

= 3.14 × 25 = **78.5 ft²**

2) Circumference = 15.7 in

Area = **19.625 in²**

3) Circumference = 50.24 yd

Area = **200.96 yd²**

4) Circumference = 43.96in

Area = **153.86 in²**

5) Circumference = 69.08 ft

Area = **379.94 ft²**

6) Circumference = 94.2 yd

Area = **706.5 yd²**

7) Circumference = 40.82 ft

Area = **132.665 ft²**

Find the circumference of each circle from the given area. (Use π = $\frac{22}{7}$ or 3.14)

1) Area = 12.56 in²

Area = πr²

12.56 in² = 3.14 × r²

4 in² = r² ; **r = 2 in**

Circumference = 2πr

= 2 × 3.14 × 2 = **12.56 in**

2) Area = 314 yd²

Circumference = **62.8 yd**

3) Area = 176.625 ft²

Circumference = **47.1 ft**

4) Area = 1017.36 yd²

Circumference = **113.04 yd**

5) Area = 50.24 ft²

Circumference = **25.12 ft**

6) Area = 6.1544 in²

Circumference = **8.792 in**

7) Area = 1384.74 yd²

Circumference = **131.88 yd**