Section 4:
Measurement & Data

Words to Know: Ratio, Rate, Proportion, Perimeter, Area, Volume, Length, Width, Mass

Name_____

Solving Proportions

Date_____ Period____

Solve each proportion.

1) $\frac{10}{8} = \frac{n}{10}$

2) $\frac{7}{5} = \frac{x}{3}$

3) $\frac{9}{6} = \frac{x}{10}$

4) $\frac{7}{n} = \frac{8}{7}$

5) $\frac{4}{3} = \frac{8}{x}$

6) $\frac{7}{b+5} = \frac{10}{5}$

7) $\frac{6}{b-1} = \frac{9}{7}$

8) $\frac{4}{m-8} = \frac{8}{2}$

9) $\frac{5}{6} = \frac{7n+9}{9}$

10) $\frac{4}{9} = \frac{r-3}{6}$

11) $\frac{7}{9} = \frac{b}{b-10}$

12) $\frac{9}{k-7} = \frac{6}{k}$

13) $\frac{4}{n+2} = \frac{7}{n}$

14) $\frac{n}{n-3} = \frac{2}{3}$

15) $\frac{x-3}{x} = \frac{9}{10}$

16) $\frac{5}{r-9} = \frac{8}{r+5}$

17) $\frac{p+10}{p-7} = \frac{8}{9}$

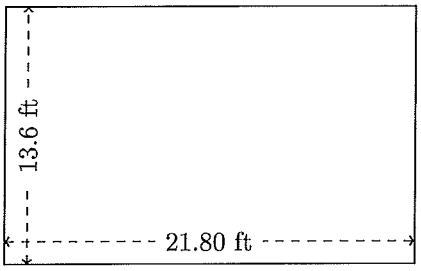
18) $\frac{2}{8} = \frac{n+4}{n-4}$

19) $\frac{n-5}{n+8} = \frac{2}{7}$

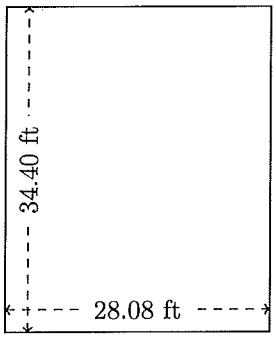
20) $\frac{n-6}{n-7} = \frac{9}{2}$

Perimeter and Area of Rectangles (A)

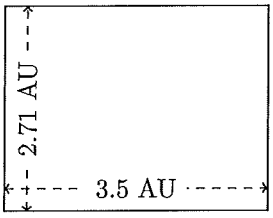
Calculate the perimeter and area for each rectangle.

1. 

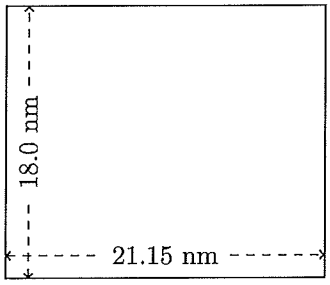
P = ?
A = ?

2. 

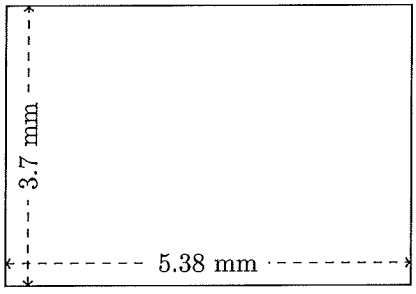
P = ?
A = ?

3. 

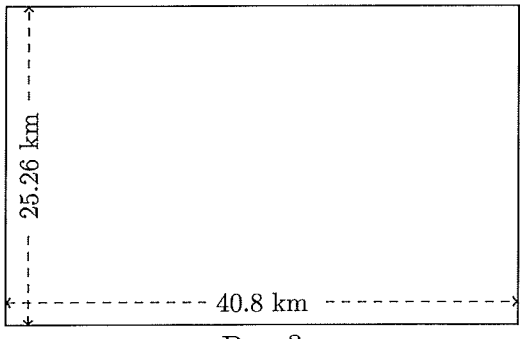
P = ?
A = ?

4. 

P = ?
A = ?

5. 

P = ?
A = ?

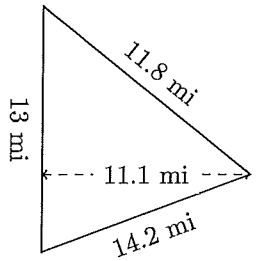
6. 

P = ?
A = ?

Perimeter and Area of Triangles (A)

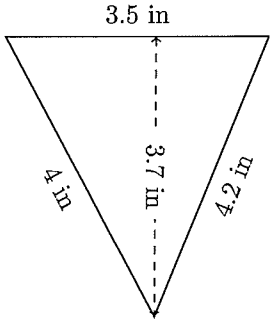
Calculate the perimeter and area for each triangle.

1.



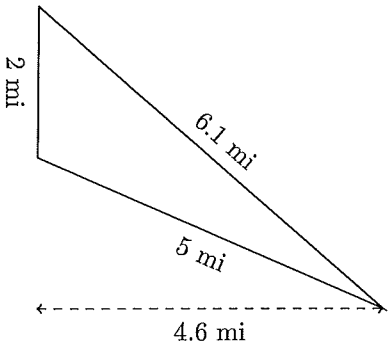
P = ? mi
A = ? mi^2

2.



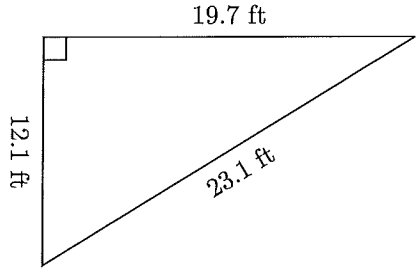
P = ? in
A = ? in^2

3.



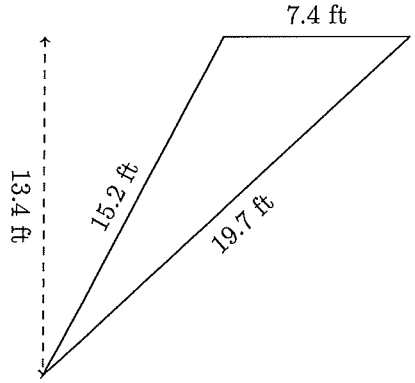
P = ? mi
A = ? mi^2

4.



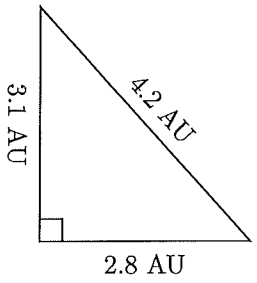
P = ? ft
A = ? ft^2

5.



P = ? ft
A = ? ft^2

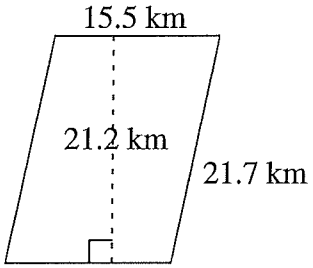
6.

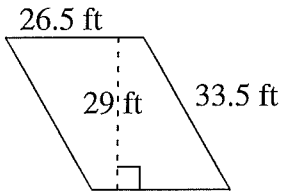


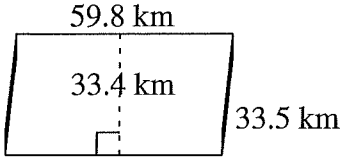
P = ? AU
A = ? AU^2

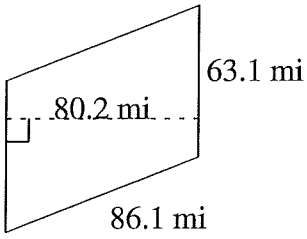
Area and Perimeter of Parallelograms (A)

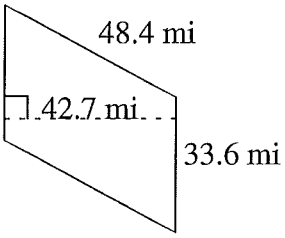
Find the area and perimeter of each parallelogram.

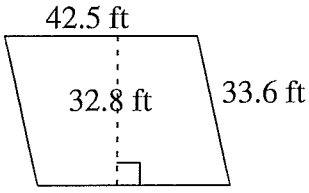






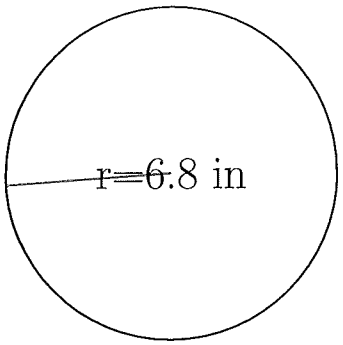






Circle Measurements (A)

Calculate each circles measurements using the given measurement.

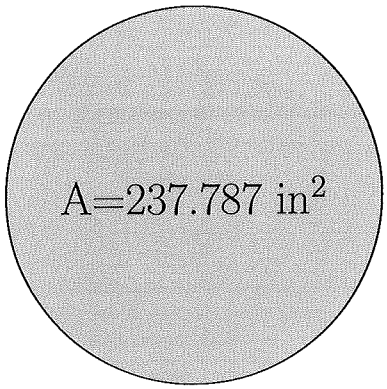


radius = 6.8 in

diameter = _____

circumference = _____

area = _____

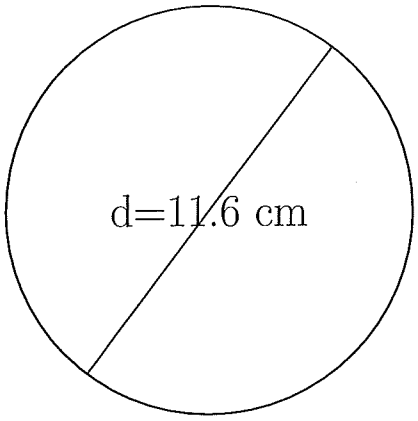


radius = _____

diameter = _____

circumference = _____

area = 237.787 in²

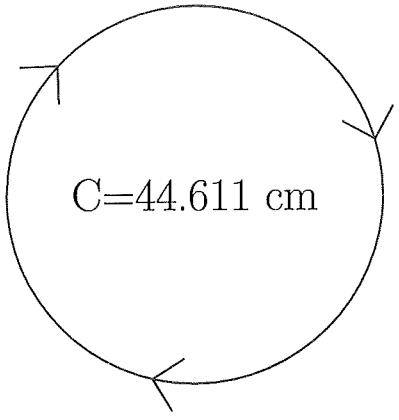


radius = _____

diameter = 11.6 cm

circumference = _____

area = _____



radius = _____

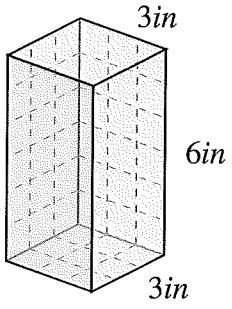
diameter = _____

circumference = 44.611 cm

area = _____

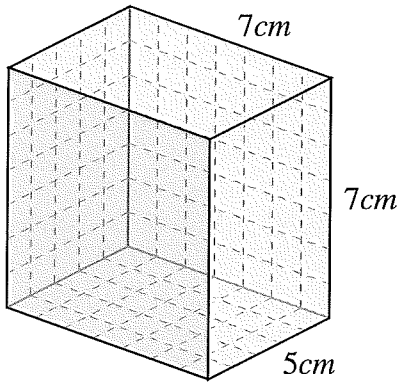
Volume and surface area of prisms (A)

Find the volume and surface area of each prism.



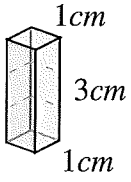
V: _____

SA: _____



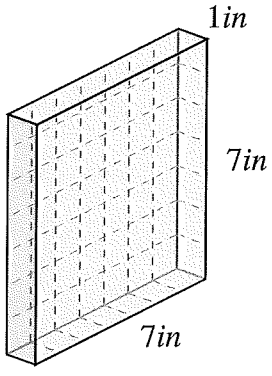
V: _____

SA: _____



V: _____

SA: _____



V: _____

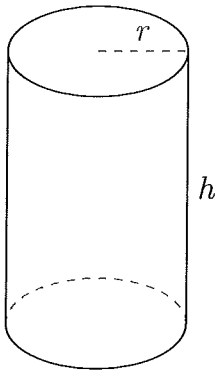
SA: _____

Area and Volume of Cylinders (A)

Calculate the surface area and volume for each cylinder.

Surface Area $= (\pi r^2 \times 2) + (\pi d \times h)$ Volume $= \pi r^2 \times h$ $d = 2r$

1.

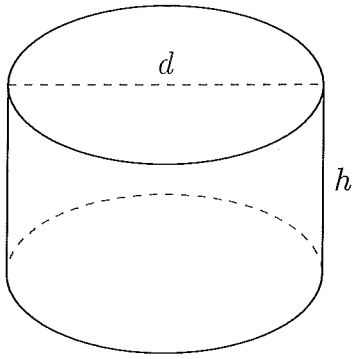


$r = 1.2$ km $h = 3.6$ km

Surface Area =

Volume =

2.

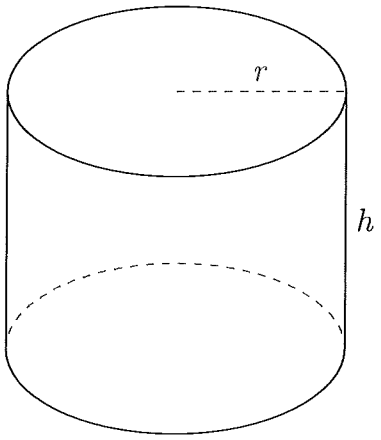


$d = 12.6$ cm $h = 7.5$ cm

Surface Area =

Volume =

3.

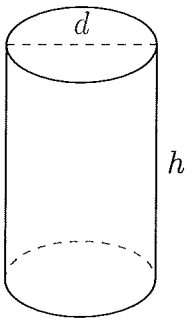


$r = 18$ ft $h = 27.2$ ft

Surface Area =

Volume =

4.



$d = 12$ m $h = 18.6$ m

Surface Area =

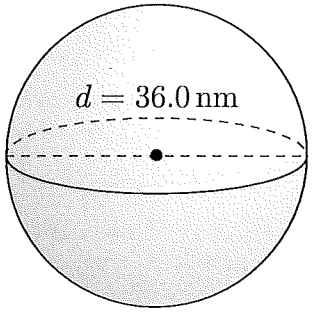
Volume =

Surface Area and Volume of Spheres (A)

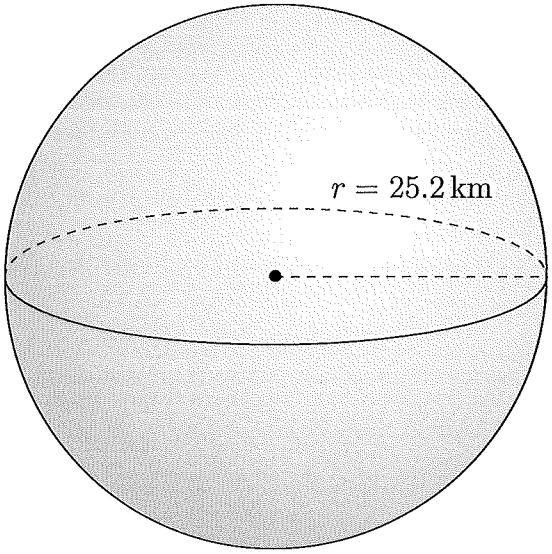
Calculate the surface area and volume for each sphere.

$$\text{Surface Area} = 4\pi r^2 \quad \text{Volume} = \frac{4}{3}\pi r^3$$

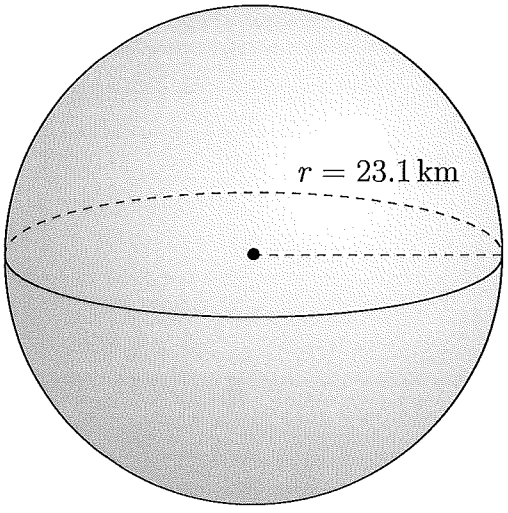
1.



2.



3.



4.