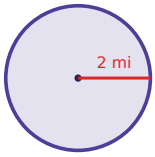
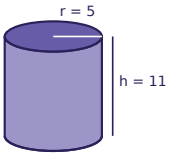
Density: Modeling with Area & Volume · 1

The people of Cedar Grove live within 2 miles of the town center, in a circular region. There are 92000 people. Find the population density in people per square mile.



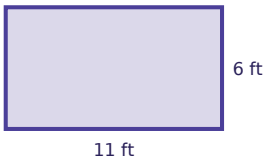
Density: Modeling with Area & Volume · 2

A cylinder of copper has radius 5 cm and height 11 cm. The density of copper is 8.9 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 3

New flooring for a room 11 ft by 6 ft costs $485. Find the cost per square foot, in dollars.



Density: Modeling with Area & Volume · 4

A piece of glass has a mass of 890 grams. The density of glass is 2.5 grams per cubic centimeter. Find its volume in cubic centimeters.

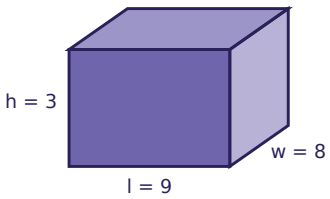
Density: Modeling with Area & Volume · 5

A county is a rectangle 5 miles by 7 miles. Its population density is 1435 people per square mile. About how many people live there?



Density: Modeling with Area & Volume · 6

A block is 9 cm by 8 cm by 3 cm and has a mass of 191 grams. Find its density in grams per cubic centimeter.

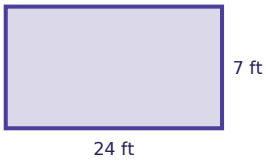


Density: Modeling with Area & Volume · 7

Town A has 51100 people on 42 square miles. Town B has 14900 people on 4 square miles. Which town has the greater population density, A or B?

Density: Modeling with Area & Volume · 8

Carpet costs $10.00 per square foot. How many dollars does it cost to carpet a room 24 ft by 7 ft?



Density: Modeling with Area & Volume · 2

ANSWER

7689.0

Density: Modeling with Area & Volume · 1

ANSWER

7321.1

Density: Modeling with Area & Volume · 4

ANSWER

356.0

Density: Modeling with Area & Volume · 3

ANSWER

7.3

Density: Modeling with Area & Volume · 6

ANSWER

0.9

Density: Modeling with Area & Volume · 5

ANSWER

50225.0

Density: Modeling with Area & Volume · 8

ANSWER

1680.0

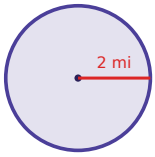
Density: Modeling with Area & Volume · 7

ANSWER

B

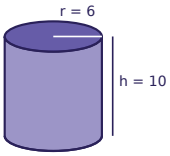
Density: Modeling with Area & Volume · 9

The people of Oak Hill live within 2 miles of the town center, in a circular region. There are 24000 people. Find the population density in people per square mile.



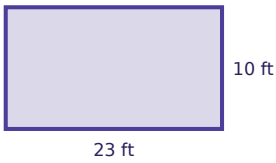
Density: Modeling with Area & Volume · 10

A cylinder of iron has radius 6 cm and height 10 cm. The density of iron is 7.9 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 11

New flooring for a room 23 ft by 10 ft costs $3375. Find the cost per square foot, in dollars.



Density: Modeling with Area & Volume · 12

A piece of ice has a mass of 480 grams. The density of ice is 0.9 grams per cubic centimeter. Find its volume in cubic centimeters.

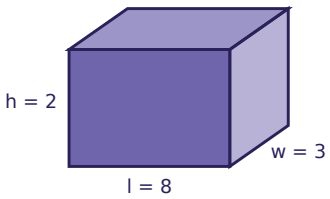
Density: Modeling with Area & Volume · 13

A county is a rectangle 4 miles by 6 miles. Its population density is 1820 people per square mile. About how many people live there?



Density: Modeling with Area & Volume · 14

A block is 8 cm by 3 cm by 2 cm and has a mass of 925 grams. Find its density in grams per cubic centimeter.

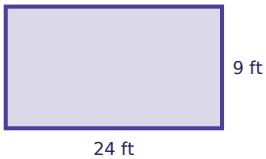


Density: Modeling with Area & Volume · 15

Town A has 18700 people on 10 square miles. Town B has 26600 people on 39 square miles. Which town has the greater population density, A or B?

Density: Modeling with Area & Volume · 16

Carpet costs $8.50 per square foot. How many dollars does it cost to carpet a room 24 ft by 9 ft?



Density: Modeling with Area & Volume · 10

ANSWER

8934.7

Density: Modeling with Area & Volume · 9

ANSWER

1909.9

Density: Modeling with Area & Volume · 12

ANSWER

533.3

Density: Modeling with Area & Volume · 11

ANSWER

14.7

Density: Modeling with Area & Volume · 14

ANSWER

19.3

Density: Modeling with Area & Volume · 13

ANSWER

43680.0

Density: Modeling with Area & Volume · 16

ANSWER

1836.0

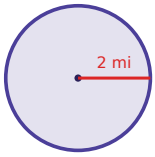
Density: Modeling with Area & Volume · 15

ANSWER

A

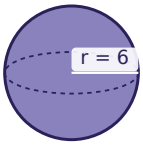
Density: Modeling with Area & Volume · 17

The people of Oak Hill live within 2 miles of the town center, in a circular region. There are 88500 people. Find the population density in people per square mile.



Density: Modeling with Area & Volume · 18

A solid ball of ice has radius 6 cm. The density of ice is 0.9 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 19

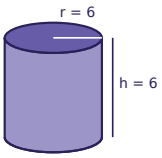
Town A has 24700 people on 10 square miles. Town B has 16300 people on 4 square miles. Which town has the greater population density, A or B?

Density: Modeling with Area & Volume · 20

A piece of gold has a mass of 260 grams. The density of gold is 19.3 grams per cubic centimeter. Find its volume in cubic centimeters.

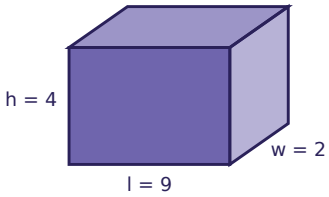
Density: Modeling with Area & Volume · 21

A cylinder of ice has radius 6 cm and height 6 cm. The density of ice is 0.9 grams per cubic centimeter. Find its mass in grams.



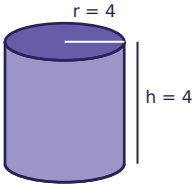
Density: Modeling with Area & Volume · 22

A block is 9 cm by 2 cm by 4 cm and has a mass of 67 grams. Find its density in grams per cubic centimeter.



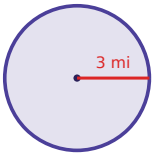
Density: Modeling with Area & Volume · 23

A solid cylinder has radius 4 cm, height 4 cm and a mass of 2113 grams. Find its density in grams per cubic centimeter.



Density: Modeling with Area & Volume · 24

The people of Brookside live within 3 miles of the town center, in a circular region. There are 87500 people. Find the population density in people per square mile.



Density: Modeling with Area & Volume · 18

ANSWER

814.3

Density: Modeling with Area & Volume · 17

ANSWER

7042.6

Density: Modeling with Area & Volume · 20

ANSWER

13.5

Density: Modeling with Area & Volume · 19

ANSWER

B

Density: Modeling with Area & Volume · 22

ANSWER

0.9

Density: Modeling with Area & Volume · 21

ANSWER

610.7

Density: Modeling with Area & Volume · 24

ANSWER

3094.7

Density: Modeling with Area & Volume · 23

ANSWER

10.5