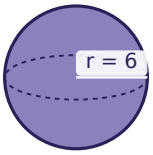
Density: Modeling with Area & Volume · 1

The people of Brookside live within 7 miles of the town center, in a circular region. There are 56500 people. Find the population density in people per square mile.



Density: Modeling with Area & Volume · 2

A solid ball of iron has radius 6 cm. The density of iron is 7.9 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 3

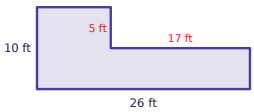
Town A has 29400 people on 4 square miles. Town B has 62700 people on 31 square miles. Which town has the greater population density, A or B?

Density: Modeling with Area & Volume · 4

A piece of iron has a mass of 1800 grams. The density of iron is 7.9 grams per cubic centimeter. Find its volume in cubic centimeters.

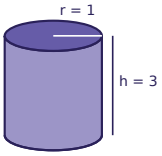
Density: Modeling with Area & Volume · 5

An L-shaped floor is a 26 ft by 10 ft rectangle with a 17 ft by 5 ft rectangle cut out of one corner. Tile costs $4.00 per square foot. How many dollars does it cost to tile the floor?



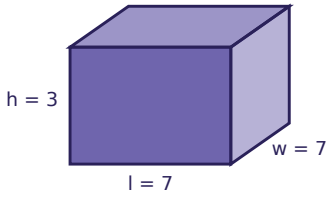
Density: Modeling with Area & Volume · 6

A cylinder of gold has radius 1 cm and height 3 cm. The density of gold is 19.3 grams per cubic centimeter. Find its mass in grams.



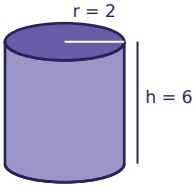
Density: Modeling with Area & Volume · 7

A block is 7 cm by 7 cm by 3 cm and has a mass of 103 grams. Find its density in grams per cubic centimeter.



Density: Modeling with Area & Volume · 8

A solid cylinder has radius 2 cm, height 6 cm and a mass of 667 grams. Find its density in grams per cubic centimeter.



Density: Modeling with Area & Volume · 2

ANSWER

7147.8

Density: Modeling with Area & Volume · 1

ANSWER

367.0

Density: Modeling with Area & Volume · 4

ANSWER

227.8

Density: Modeling with Area & Volume · 3

ANSWER

A

Density: Modeling with Area & Volume · 6

ANSWER

181.9

Density: Modeling with Area & Volume · 5

ANSWER

700.0

Density: Modeling with Area & Volume · 8

ANSWER

8.8

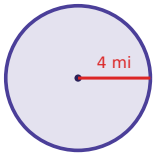
Density: Modeling with Area & Volume · 7

ANSWER

0.7

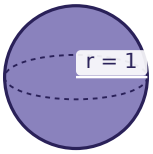
Density: Modeling with Area & Volume · 9

The people of Cedar Grove live within 4 miles of the town center, in a circular region. There are 80000 people. Find the population density in people per square mile.



Density: Modeling with Area & Volume · 10

A solid ball of silver has radius 1 cm. The density of silver is 10.5 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 11

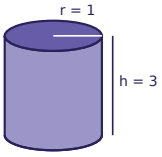
Town A has 57200 people on 29 square miles. Town B has 27300 people on 12 square miles. Which town has the greater population density, A or B?

Density: Modeling with Area & Volume · 12

A piece of glass has a mass of 1020 grams. The density of glass is 2.5 grams per cubic centimeter. Find its volume in cubic centimeters.

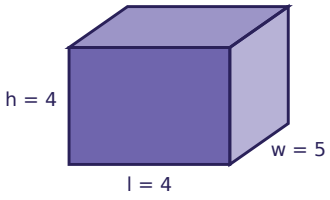
Density: Modeling with Area & Volume · 13

A cylinder of silver has radius 1 cm and height 3 cm. The density of silver is 10.5 grams per cubic centimeter. Find its mass in grams.



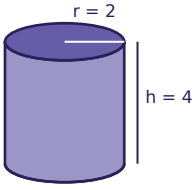
Density: Modeling with Area & Volume · 14

A block is 4 cm by 5 cm by 4 cm and has a mass of 213 grams. Find its density in grams per cubic centimeter.



Density: Modeling with Area & Volume · 15

A solid cylinder has radius 2 cm, height 4 cm and a mass of 35 grams. Find its density in grams per cubic centimeter.



Density: Modeling with Area & Volume · 16

The people of Brookside live within 4 miles of the town center, in a circular region. There are 18000 people. Find the population density in people per square mile.



Density: Modeling with Area & Volume · 10

ANSWER

44.0

Density: Modeling with Area & Volume · 9

ANSWER

1591.5

Density: Modeling with Area & Volume · 12

ANSWER

408.0

Density: Modeling with Area & Volume · 11

ANSWER

B

Density: Modeling with Area & Volume · 14

ANSWER

2.7

Density: Modeling with Area & Volume · 13

ANSWER

99.0

Density: Modeling with Area & Volume · 16

ANSWER

358.1

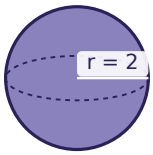
Density: Modeling with Area & Volume · 15

ANSWER

0.7

Density: Modeling with Area & Volume · 17

A solid ball of silver has radius 2 cm. The density of silver is 10.5 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 18

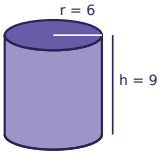
Town A has 77800 people on 27 square miles. Town B has 59200 people on 16 square miles. Which town has the greater population density, A or B?

Density: Modeling with Area & Volume · 19

A piece of ice has a mass of 1110 grams. The density of ice is 0.9 grams per cubic centimeter. Find its volume in cubic centimeters.

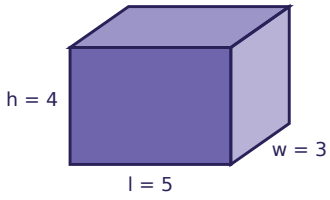
Density: Modeling with Area & Volume · 20

A cylinder of ice has radius 6 cm and height 9 cm. The density of ice is 0.9 grams per cubic centimeter. Find its mass in grams.



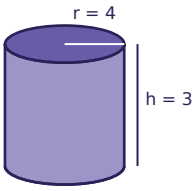
Density: Modeling with Area & Volume · 21

A block is 5 cm by 3 cm by 4 cm and has a mass of 1155 grams. Find its density in grams per cubic centimeter.



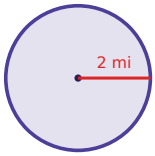
Density: Modeling with Area & Volume · 22

A solid cylinder has radius 4 cm, height 3 cm and a mass of 105 grams. Find its density in grams per cubic centimeter.



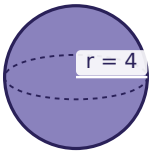
Density: Modeling with Area & Volume · 23

The people of Riverton live within 2 miles of the town center, in a circular region. There are 29000 people. Find the population density in people per square mile.



Density: Modeling with Area & Volume · 24

A solid ball of copper has radius 4 cm. The density of copper is 8.9 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 18

ANSWER

B

Density: Modeling with Area & Volume · 17

ANSWER

351.9

Density: Modeling with Area & Volume · 20

ANSWER

916.1

Density: Modeling with Area & Volume · 19

ANSWER

1233.3

Density: Modeling with Area & Volume · 22

ANSWER

0.7

Density: Modeling with Area & Volume · 21

ANSWER

19.3

Density: Modeling with Area & Volume · 24

ANSWER

2385.9

Density: Modeling with Area & Volume · 23

ANSWER

2307.7