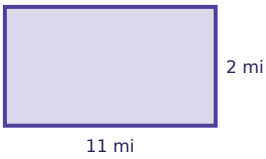
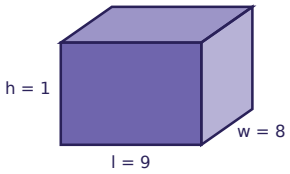
Density: Modeling with Area & Volume · 1

Fairfield is a rectangle 11 miles long and 2 miles wide, with 31100 people. Find its population density in people per square mile.



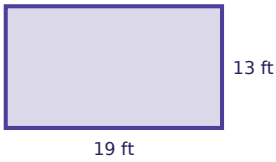
Density: Modeling with Area & Volume · 2

A block of gold is 9 cm by 8 cm by 1 cm. The density of gold is 19.3 grams per cubic centimeter. Find the mass of the block in grams.



Density: Modeling with Area & Volume · 3

New flooring for a room 19 ft by 13 ft costs $455. Find the cost per square foot, in dollars.



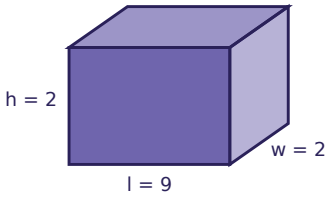
Density: Modeling with Area & Volume · 4

A county is a rectangle 2 miles by 2 miles. Its population density is 320 people per square mile. About how many people live there?



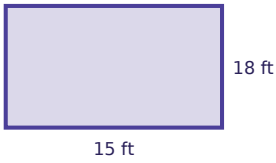
Density: Modeling with Area & Volume · 5

A block is 9 cm by 2 cm by 2 cm and has a mass of 284 grams. Find its density in grams per cubic centimeter.



Density: Modeling with Area & Volume · 6

Carpet costs $13.50 per square foot. How many dollars does it cost to carpet a room 15 ft by 18 ft?



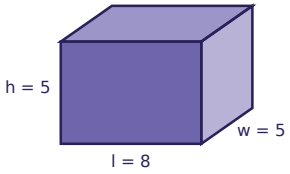
Density: Modeling with Area & Volume · 7

Cedar Grove is a rectangle 7 miles long and 3 miles wide, with 14400 people. Find its population density in people per square mile.



Density: Modeling with Area & Volume · 8

A block of iron is 8 cm by 5 cm by 5 cm. The density of iron is 7.9 grams per cubic centimeter. Find the mass of the block in grams.



Density: Modeling with Area & Volume · 2

ANSWER

1389.6

Density: Modeling with Area & Volume · 1

ANSWER

1413.6

Density: Modeling with Area & Volume · 4

ANSWER

1280.0

Density: Modeling with Area & Volume · 3

ANSWER

1.8

Density: Modeling with Area & Volume · 6

ANSWER

3645.0

Density: Modeling with Area & Volume · 5

ANSWER

7.9

Density: Modeling with Area & Volume · 8

ANSWER

1580.0

Density: Modeling with Area & Volume · 7

ANSWER

685.7

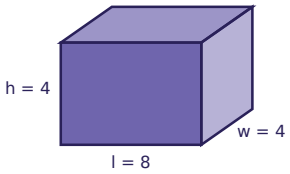
Density: Modeling with Area & Volume · 9

Fairfield is a rectangle 3 miles long and 8 miles wide, with 9400 people. Find its population density in people per square mile.



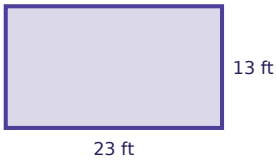
Density: Modeling with Area & Volume · 10

A block of copper is 8 cm by 4 cm by 4 cm. The density of copper is 8.9 grams per cubic centimeter. Find the mass of the block in grams.



Density: Modeling with Area & Volume · 11

New flooring for a room 23 ft by 13 ft costs $315. Find the cost per square foot, in dollars.



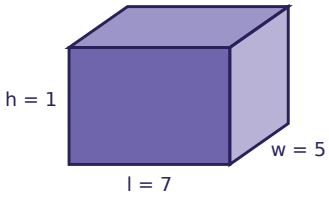
Density: Modeling with Area & Volume · 12

A county is a rectangle 9 miles by 3 miles. Its population density is 1275 people per square mile. About how many people live there?



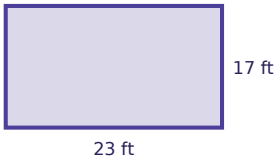
Density: Modeling with Area & Volume · 13

A block is 7 cm by 5 cm by 1 cm and has a mass of 35 grams. Find its density in grams per cubic centimeter.



Density: Modeling with Area & Volume · 14

Carpet costs $13.00 per square foot. How many dollars does it cost to carpet a room 23 ft by 17 ft?



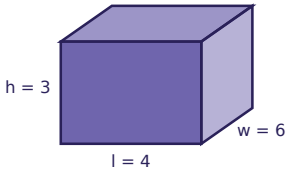
Density: Modeling with Area & Volume · 15

Cedar Grove is a rectangle 11 miles long and 3 miles wide, with 38000 people. Find its population density in people per square mile.



Density: Modeling with Area & Volume · 16

A block of oak wood is 4 cm by 6 cm by 3 cm. The density of oak wood is 0.7 grams per cubic centimeter. Find the mass of the block in grams.



Density: Modeling with Area & Volume · 10

ANSWER

1139.2

Density: Modeling with Area & Volume · 9

ANSWER

391.7

Density: Modeling with Area & Volume · 12

ANSWER

34425.0

Density: Modeling with Area & Volume · 11

ANSWER

1.1

Density: Modeling with Area & Volume · 14

ANSWER

5083.0

Density: Modeling with Area & Volume · 13

ANSWER

1.0

Density: Modeling with Area & Volume · 16

ANSWER

50.4

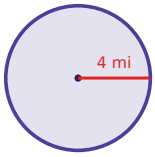
Density: Modeling with Area & Volume · 15

ANSWER

1151.5

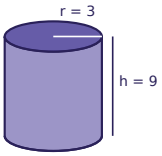
Density: Modeling with Area & Volume · 17

The people of Oak Hill live within 4 miles of the town center, in a circular region. There are 57000 people. Find the population density in people per square mile.



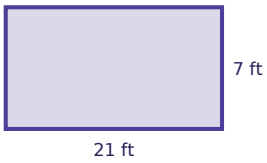
Density: Modeling with Area & Volume · 18

A cylinder of iron has radius 3 cm and height 9 cm. The density of iron is 7.9 grams per cubic centimeter. Find its mass in grams.



Density: Modeling with Area & Volume · 19

New flooring for a room 21 ft by 7 ft costs $4475. Find the cost per square foot, in dollars.



Density: Modeling with Area & Volume · 20

A piece of aluminum has a mass of 730 grams. The density of aluminum is 2.7 grams per cubic centimeter. Find its volume in cubic centimeters.

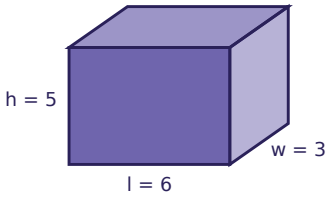
Density: Modeling with Area & Volume · 21

A county is a rectangle 7 miles by 8 miles. Its population density is 1145 people per square mile. About how many people live there?



Density: Modeling with Area & Volume · 22

A block is 6 cm by 3 cm by 5 cm and has a mass of 1740 grams. Find its density in grams per cubic centimeter.

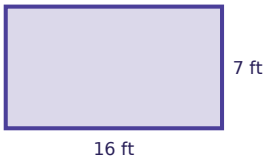


Density: Modeling with Area & Volume · 23

Town A has 68300 people on 32 square miles. Town B has 23000 people on 5 square miles. Which town has the greater population density, A or B?

Density: Modeling with Area & Volume · 24

Carpet costs $8.00 per square foot. How many dollars does it cost to carpet a room 16 ft by 7 ft?



Density: Modeling with Area & Volume · 18

ANSWER

2010.3

Density: Modeling with Area & Volume · 17

ANSWER

1134.0

Density: Modeling with Area & Volume · 20

ANSWER

270.4

Density: Modeling with Area & Volume · 19

ANSWER

30.4

Density: Modeling with Area & Volume · 22

ANSWER

19.3

Density: Modeling with Area & Volume · 21

ANSWER

64120.0

Density: Modeling with Area & Volume · 24

ANSWER

896.0

Density: Modeling with Area & Volume · 23

ANSWER

B