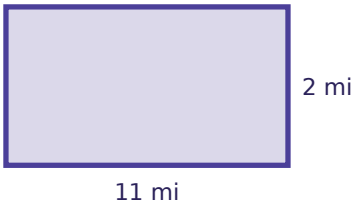
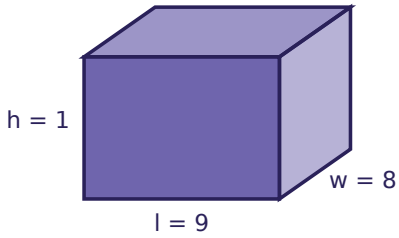
Task card 1 Density: Modeling with Area & Volu...

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



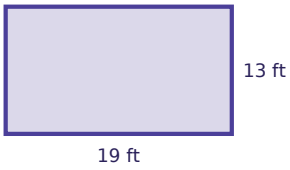
Task card 2 Density: Modeling with Area & Volu...

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.



Task card 3 Density: Modeling with Area & Volu...

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



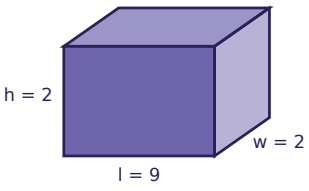
Task card 4 Density: Modeling with Area & Volu...

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?



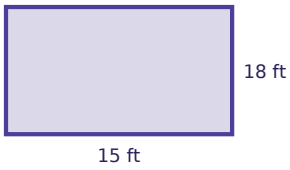
Task card 5 Density: Modeling with Area & Volu...

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.



Task card 6 Density: Modeling with Area & Volu...

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



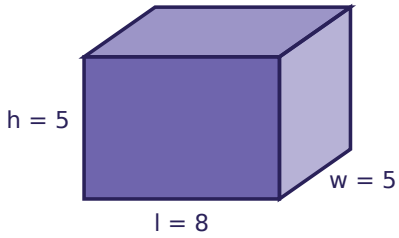
Task card 7 Density: Modeling with Area & Volu...

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



Task card 8 Density: Modeling with Area & Volu...

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.



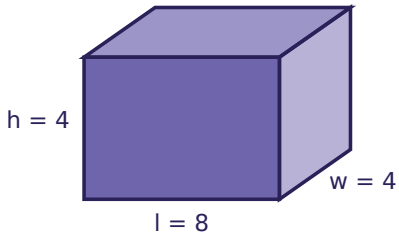
Task card 9 Density: Modeling with Area & Volu...

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



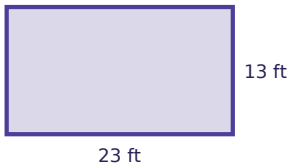
Task card 10 Density: Modeling with Area & Volu...

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.



Task card 11 Density: Modeling with Area & Volu...

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



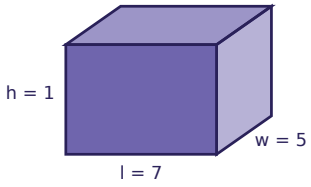
Task card 12 Density: Modeling with Area & Volu...

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?



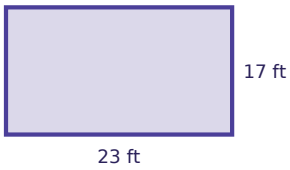
Task card 13 Density: Modeling with Area & Volu...

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.



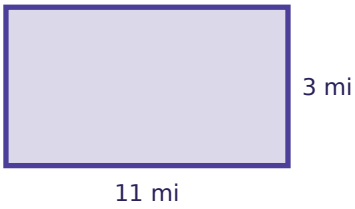
Task card 14 Density: Modeling with Area & Volu...

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



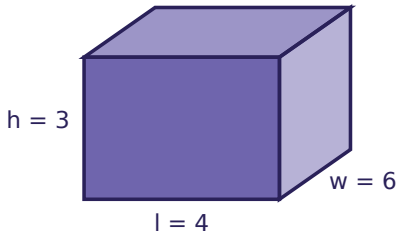
Task card 15 Density: Modeling with Area & Volu...

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



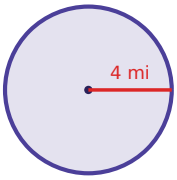
Task card 16 Density: Modeling with Area & Volu...

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.



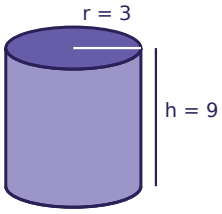
Task card 17 Density: Modeling with Area & Volu...

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.



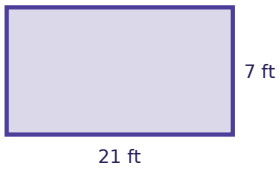
Task card 18 Density: Modeling with Area & Volu...

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.



Task card 19 Density: Modeling with Area & Volu...

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



Task card 20 Density: Modeling with Area & Volu...

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.

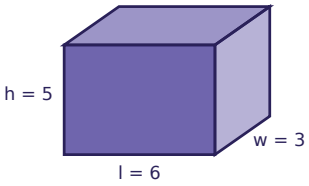
Task card 21 Density: Modeling with Area & Volu...

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?



Task card 22 Density: Modeling with Area & Volu...

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.

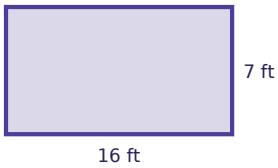


Task card 23 Density: Modeling with Area & Volu...

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?

Task card 24 Density: Modeling with Area & Volu...

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 Task Cards

Recording sheet · Grade 10 · Write just the number, with no units, rounded to the nearest tenth (like 162.0 or 37.5; 162 is also fine). Use the π key on a calculator for circles, cylinders and spheres. When asked which town, answer A or B.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Density: Modeling with Area & Volume Task Cards: Answer Key

Grade 10 · Easy

The answers online

1. 1413.6	**2.** 1389.6	**3.** 1.8
4. 1280.0	**5.** 7.9	**6.** 3645.0
7. 685.7	**8.** 1580.0	**9.** 391.7
10. 1139.2	**11.** 1.1	**12.** 34425.0
13. 1.0	**14.** 5083.0	**15.** 1151.5
16. 50.4	**17.** 1134.0	**18.** 2010.3
19. 30.4	**20.** 270.4	**21.** 64120.0
22. 19.3	**23.** B	**24.** 896.0