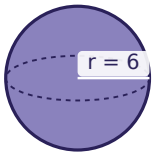
Task card 1 Density: Modeling with Area & Volu...

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.



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

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.



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

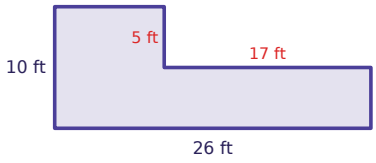
Town A has 29400 people on 4 square miles. Town B has 62700 people on 31 square miles. Which town has the greater population density, A or B?

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

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.

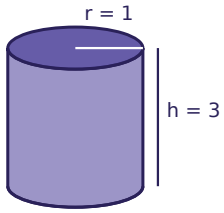
Task card 5 Density: Modeling with Area & Volu...

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?



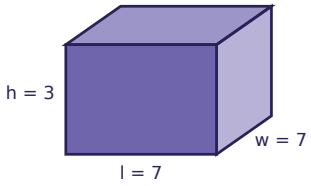
Task card 6 Density: Modeling with Area & Volu...

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.



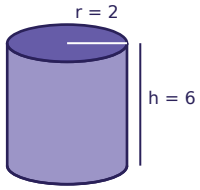
Task card 7 Density: Modeling with Area & Volu...

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.



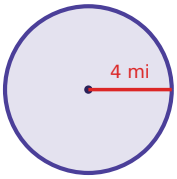
Task card 8 Density: Modeling with Area & Volu...

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



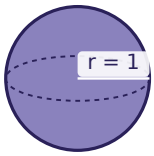
Task card 9 Density: Modeling with Area & Volu...

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.



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

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.



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

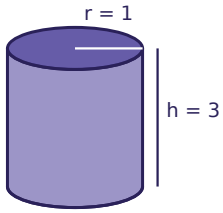
Town A has 57200 people on 29 square miles. Town B has 27300 people on 12 square miles. Which town has the greater population density, A or B?

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

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.

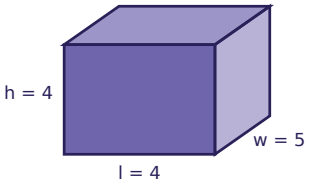
Task card 13 Density: Modeling with Area & Volu...

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.



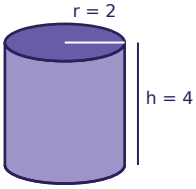
Task card 14 Density: Modeling with Area & Volu...

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.



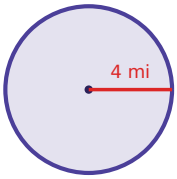
Task card 15 Density: Modeling with Area & Volu...

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



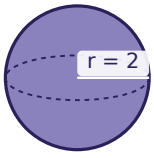
Task card 16 Density: Modeling with Area & Volu...

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.



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

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.



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

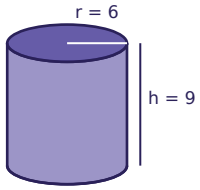
Town A has 77800 people on 27 square miles. Town B has 59200 people on 16 square miles. Which town has the greater population density, A or B?

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

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.

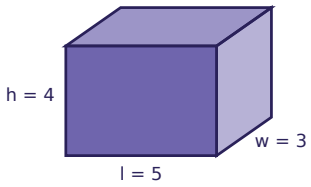
Task card 20 Density: Modeling with Area & Volu...

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.



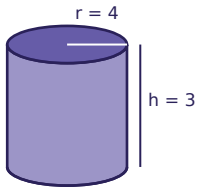
Task card 21 Density: Modeling with Area & Volu...

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.



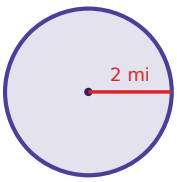
Task card 22 Density: Modeling with Area & Volu...

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



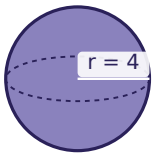
Task card 23 Density: Modeling with Area & Volu...

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.



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

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 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 · Hard

The answers online

1. 367.0	**2.** 7147.8	**3.** A
4. 227.8	**5.** 700.0	**6.** 181.9
7. 0.7	**8.** 8.8	**9.** 1591.5
10. 44.0	**11.** B	**12.** 408.0
13. 99.0	**14.** 2.7	**15.** 0.7
16. 358.1	**17.** 351.9	**18.** B
19. 1233.3	**20.** 916.1	**21.** 19.3
22. 0.7	**23.** 2307.7	**24.** 2385.9