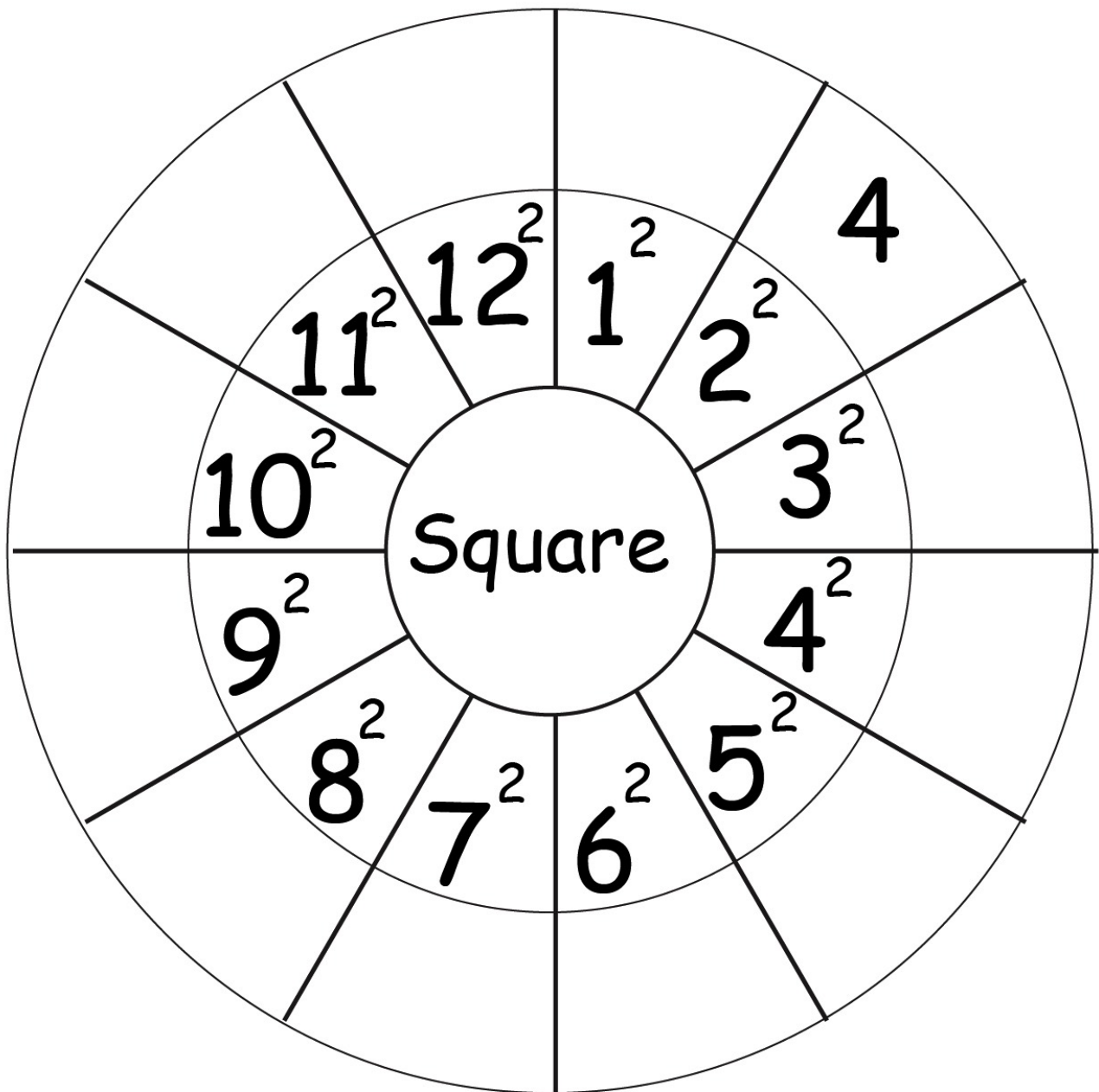


Squares



Name: _____

Squares and Square Roots

a. $\sqrt{144} =$ _____

b. $\sqrt{81} =$ _____

c. $\sqrt{9} =$ _____

d. $\sqrt{49} =$ _____

e. $\sqrt{100} =$ _____

f. $\sqrt{36} =$ _____

g. $\sqrt{64} =$ _____

h. $\sqrt{16} =$ _____

i. $\sqrt{121} =$ _____

j. $\sqrt{25} =$ _____

k. $\sqrt{1} =$ _____

l. $\sqrt{0} =$ _____

m. $10^2 =$ _____

n. $9^2 =$ _____

o. $5^2 =$ _____

p. $7^2 =$ _____

o. $11^2 =$ _____

p. $6^2 =$ _____

q. $8^2 =$ _____

r. $1^2 =$ _____

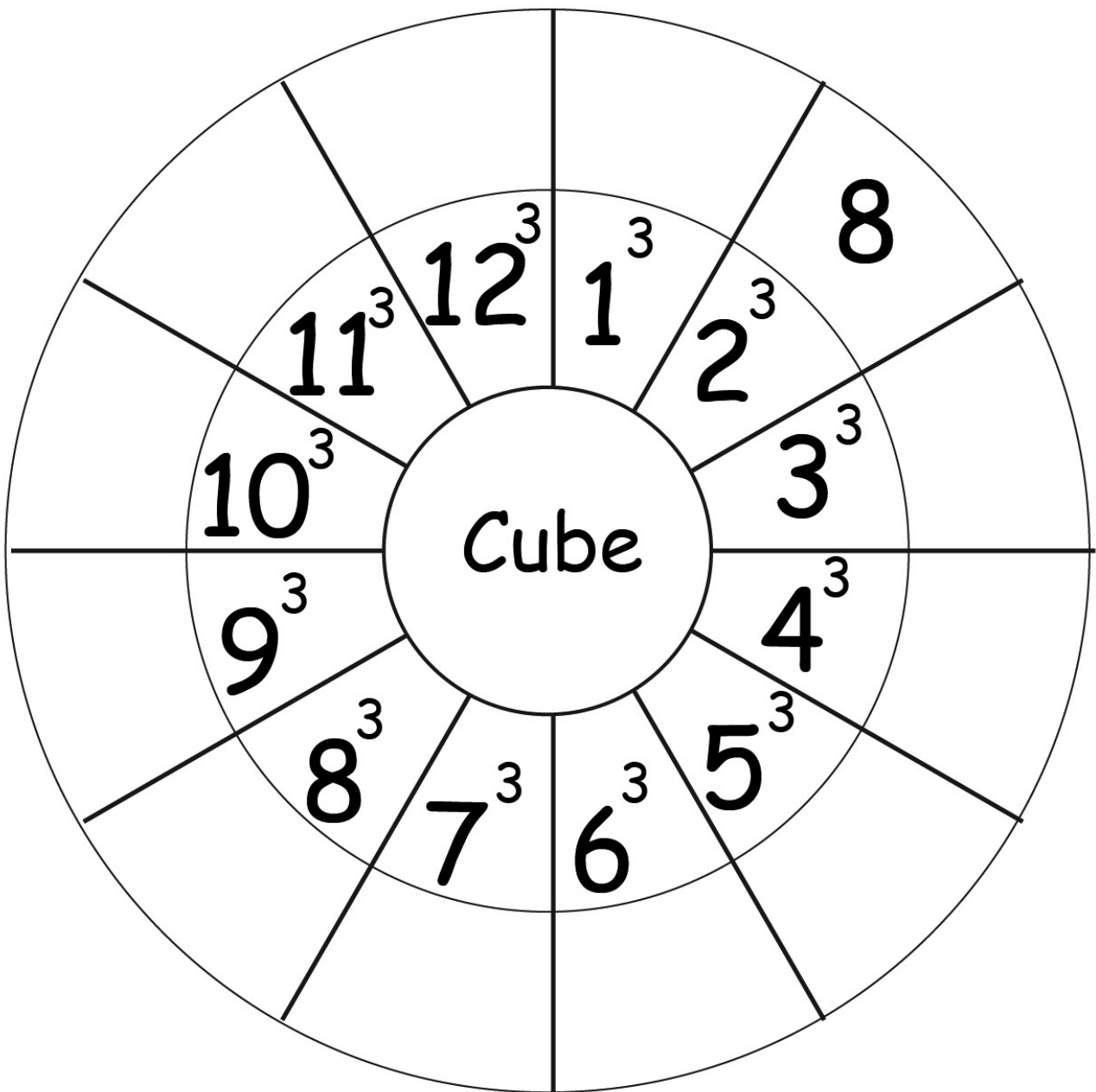
s. $0^2 =$ _____

t. $4^2 =$ _____

u. $12^2 =$ _____

v. $3^2 =$ _____

Cubes



Name : _____

Score : _____

Teacher : _____

Date : _____

Evaluate the Squares and Cubes

1) $(10)^3 = \underline{\hspace{2cm}}$

11) $(8)^2 = \underline{\hspace{2cm}}$

2) $(9)^3 = \underline{\hspace{2cm}}$

12) $(10)^2 = \underline{\hspace{2cm}}$

3) $(8)^2 = \underline{\hspace{2cm}}$

13) $(4)^3 = \underline{\hspace{2cm}}$

4) $(2)^3 = \underline{\hspace{2cm}}$

14) $(2)^2 = \underline{\hspace{2cm}}$

5) $(1)^3 = \underline{\hspace{2cm}}$

15) $(7)^2 = \underline{\hspace{2cm}}$

6) $(6)^3 = \underline{\hspace{2cm}}$

16) $(3)^3 = \underline{\hspace{2cm}}$

7) $(5)^2 = \underline{\hspace{2cm}}$

17) $(4)^2 = \underline{\hspace{2cm}}$

8) $(3)^2 = \underline{\hspace{2cm}}$

18) $(12)^2 = \underline{\hspace{2cm}}$

9) $(2)^3 = \underline{\hspace{2cm}}$

19) $(3)^3 = \underline{\hspace{2cm}}$

10) $(3)^3 = \underline{\hspace{2cm}}$

20) $(9)^2 = \underline{\hspace{2cm}}$

Name : _____

Score : _____

Teacher : _____

Date : _____

Perfect Squares and Cubes Operations

Write the square or cube root for each number.

1) $\sqrt{36} = \underline{\hspace{2cm}}$

2) $\sqrt[3]{1} = \underline{\hspace{2cm}}$

3) $\sqrt{25} = \underline{\hspace{2cm}}$

4) $\sqrt{16} = \underline{\hspace{2cm}}$

5) $\sqrt[3]{343} = \underline{\hspace{2cm}}$

6) $\sqrt{81} = \underline{\hspace{2cm}}$

Write the square root for each number.

7) $\sqrt{64} = \underline{\hspace{2cm}}$

8) $\sqrt{36} = \underline{\hspace{2cm}}$

9) $\sqrt{9} = \underline{\hspace{2cm}}$

10) $\sqrt{49} = \underline{\hspace{2cm}}$

11) $\sqrt{1} = \underline{\hspace{2cm}}$

12) $\sqrt{100} = \underline{\hspace{2cm}}$

Write the cube root for each number.

13) $\sqrt[3]{343} = \underline{\hspace{2cm}}$

14) $\sqrt[3]{64} = \underline{\hspace{2cm}}$

15) $\sqrt[3]{1000} = \underline{\hspace{2cm}}$

16) $\sqrt[3]{125} = \underline{\hspace{2cm}}$

17) $\sqrt[3]{216} = \underline{\hspace{2cm}}$

18) $\sqrt[3]{512} = \underline{\hspace{2cm}}$

Name: _____

Math Unit 12

Match each item on the left with the correct item on the right.

- | | | |
|--------------|---|------------------|
| 1. 1 foot | • | • 1.6 kilometers |
| 2. 3 feet | • | • 1 yard |
| 3. 5280 feet | • | • 12 inches |
| 4. 1 mile | • | • 1 mile |

Name: _____ Date: _____

Length Conversion Practice - #1

Round answers to 2 decimal places

12 Inches = 1 Foot 3 Feet = 1 Yard 5280 Feet = 1 Mile

33 Yards = _____ Miles

83 Feet = _____ Yards

96 Feet = _____ Miles

37 Inches = _____ Feet

73 Inches = _____ Yards

32 Feet = _____ Inches

46 Feet = _____ Miles

18 Yards = _____ Miles

37 Inches = _____ Yards

6 Miles = _____ Yards

48 Feet = _____ Miles

10 Inches = _____ Feet

76 Feet = _____ Miles

94 Yards = _____ Miles

Name: _____ Date: _____

Length Conversion Practice - #2

Round answers to 2 decimal places

12 Inches = 1 Foot 3 Feet = 1 Yard 5280 Feet = 1 Mile

24 Yards = _____ Feet

6 Feet = _____ Inches

12 Yards = _____ Miles

48 Feet = _____ Inches

74 Yards = _____ Miles

21 Yards = _____ Miles

3 Miles = _____ Inches

3 Inches = _____ Feet

90 Yards = _____ Inches

98 Inches = _____ Yards

45 Inches = _____ Yards

85 Feet = _____ Miles

69 Yards = _____ Feet

8 Yards = _____ Inches

Name: _____ Date: _____

Length Conversion Practice - #3

Round answers to 2 decimal places

63 Yards = _____ Miles

19 Yards = _____ Miles

29 Yards = _____ Miles

57 Yards = _____ Miles

38 Inches = _____ Feet

3 Miles = _____ Inches

55 Feet = _____ Inches

8 Miles = _____ Yards

97 Yards = _____ Inches

60 Yards = _____ Miles

97 Inches = _____ Feet

7 Miles = _____ Yards

10 Miles = _____ Yards

70 Feet = _____ Inches

18 Feet = _____ Yards

Name: _____

Math Unit 13

Match each item on the left with the correct item on the right.

- | | | |
|----------------|---|--------------|
| 1. 1 pound | • | • 1000 grams |
| 2. 2000 pounds | • | • 1 ton |
| 3. 1 kilogram | • | • 2.2 pounds |
| 4. 1 kilogram | • | • 16 ounces |

Name: _____

Grams and Kilograms

A **gram** (g) is used to measure the weight or mass of very light objects.
A small paperclip weighs about a gram.

A **kilogram** (kg) is used to measure the weight or mass of heavier objects.
A one-liter bottle of water weighs about a kilogram.

1 kilogram = 1,000 grams

$$3.7 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$$

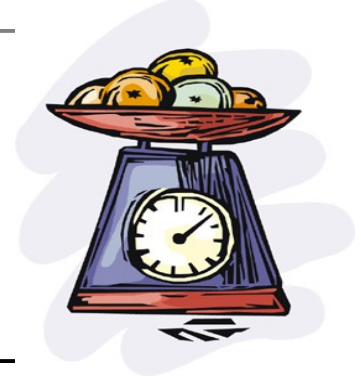
$$6,200 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$$

$$3.7 \text{ kg} \times 1,000 = 3,700 \text{ g}$$

$$6,200 \div 1,000 = 6.2 \text{ kg}$$

$$3 \text{ kg} = 3,000 \text{ g}$$

$$6,200 \text{ g} = 6.2 \text{ kg}$$



1. A pencil weighs about... **a.** 3 grams **b.** 500 grams **c.** 1.2 kilograms
2. A gallon of milk weighs about... **a.** 39 grams **b.** 3.9 kilograms **c.** 39 kilograms
3. A pineapple weighs about... **a.** 2.2 kilograms **b.** 22 kilograms **c.** 222 grams
4. $8.7 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$ 5. $2,200 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$
6. $5,100 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$ 7. $7.1 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$
8. $12,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$ 9. $35.7 \text{ kg} = \underline{\hspace{2cm}} \text{ g}$
10. June's pet guinea pig weighs 950 grams. Larry's pet rabbit weighs 2.1 kilograms. How much more does Larry's pet weigh than June's? Explain how you found your answer.

Name: _____

Weight

1 pound = 16 ounces

Abbreviation for pounds = lbs.

1 ton = 2,000 pounds

Abbreviation for ounces = oz.

Abbreviation for tons = T



2.5 lbs. = _____ oz.

2.5 T = _____ lbs.

16 oz. + 16 oz. + 8 oz. = 40 oz.

2,000 lbs. + 2,000 lbs. + 1,000 lbs. = 5,000 lbs.

2.5 lbs. = 40 oz.

2.5 T = 5,000 lbs.

1. 1.5 lbs. = _____ oz.

2. 2 T = _____ lbs.

3. 7 lbs. = _____ oz.

4. 6.5 T = _____ lbs.

5. 5.5 lbs. = _____ oz.

6. 10.5 lbs. = _____ oz.

7. Which weighs more: 3.5 pounds of butter or 60 ounces of butter? Explain.

8. Which weighs more: 2.5 pounds of rocks or 40 ounces of feathers? Explain.

Name _____ Date _____

Measurement Conversion Word Problems - Weight

1. Ms. Bezel, the jewelry designer, ordered 500 grams of silver, 800 grams of brass, and 700 grams of copper. How many kilograms of metal did she order in all?

_____ kilograms

2. Eric has two dogs. He feeds each dog 250 grams of dry food each, twice a day. If he buys a 10-kilogram bag of dry food, how many days will the bag last?

3. Mr. Snow bought 90 grams of Christmas candy for each of his 14 grandchildren. How many total kilograms of candy did he buy?

_____ kilograms

4. The vet instructed Manuel to give his dog .5 milligrams of medication per 1 kilogram of the dogs weight. His dog weighs 12 kilograms. How much total medication should the dog have?

_____ milligrams

5. Sarah purchased 8kg of sugar, 10kg of flour, 500g of cocoa, 225g of pecans, and 275g of coconut. How much do all her groceries weigh in kilograms?

_____ kilograms

6. The adult dosage directions for 325mg aspirin tablets reads "take 1 or 2 tablets every 4 hours, not to exceed 12 tablets in 24 hours." In grams, what is the maximum amount of aspirin an adult should take in one day?

_____ grams

Name: _____

Math Unit 14

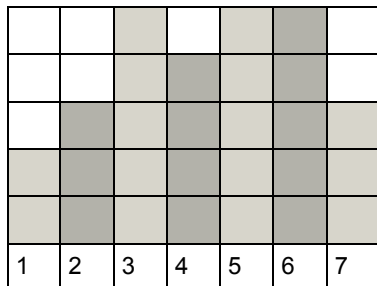
Match each item on the left with the correct item on the right.

- | | | |
|--------------------|---|--------------------|
| 1. 1 inch | • | • 1 kilometer |
| 2. 100 centimeters | • | • 2.54 centimeters |
| 3. 1000 meters | • | • 1 meter |

Name _____ Date _____

Measurement Conversion Word Problems - Length/Distance

1. Zach made a chart to show how many mm his plant grew each week for 7 weeks. Each block equals 5 mm of growth. How tall is the plant?



_____ centimeters

2. Susie begins a new walking program with 600 m on the first day. Each day, she will increase her walk by 200 m. How many kilometers will she walk on day 18 of her program?

_____ kilometers

3. Trudy wants to surround her garden on all four sides with fencing. Her rectangular garden is 270 cm by 130 cm. How many meters of fencing will she need?

_____ meters

4. Jin is training for the 50 meter dash. Each day that he trains, he runs the dash six times. Last week, he trained for four days. This week, he trained for five days. In two weeks, how far has Jin run?

_____ kilometers

5. Lu is stringing beads to make a necklace. She is using 30 of the 8 mm beads, 70 of the 4 mm beads, and 40 of the 2 mm beads. How long will her finished necklace be?

_____ centimeters

6. Mara is building a wind chime. She needs string in the following lengths: six pieces of 20 cm, 3 pieces of 30 cm and one piece of 40 cm. How much string does she need?

_____ meters

Name: _____ Date: _____

Length Conversion Practice - #4

Round answers to 2 decimal places

10 Millimeters = 1 Centimeter 10 Centimeters = 1 Decimeter

10 Decimeters = 1 Meter 1000 Meters = 1 Kilometer

9 Kilometers = _____ Centimeters

10 Kilometers = _____ Decimeters

69 Decimeters = _____ Kilometers

9 Kilometers = _____ Centimeters

8 Kilometers = _____ Meters

72 Millimeters = _____ Meters

8 Kilometers = _____ Millimeters

10 Kilometers = _____ Centimeters

87 Meters = _____ Kilometers

54 Millimeters = _____ Meters

69 Meters = _____ Kilometers

76 Decimeters = _____ Millimeters

54 Decimeters = _____ Kilometers

Name: _____ Date: _____

Length Conversion Practice - #7

Round answers to 2 decimal places

12 Inches = 1 Foot

3 Feet = 1 Yard

5280 Feet = 1 Mile

2.54 Centimeters = 1 Inch

1.0936 Yards = 1 Meter

10 Millimeters = 1 Centimeter

10 Centimeters = 1 Decimeter

10 Decimeters = 1 Meter

1000 Meters = 1 Kilometer

1.609 Kilometers = 1 Mile

5 Miles = _____ Feet

4 Kilometers = _____ Meters

4 Miles = _____ Decimeters

3 Kilometers = _____ Decimeters

3 Miles = _____ Meters

79 Millimeters = _____ Yards

100 Decimeters = _____ Inches

5 Decimeters = _____ Yards

10 Kilometers = _____ Miles

74 Meters = _____ Miles

6 Miles = _____ Decimeters

Name: _____ Date: _____

Length Conversion Practice - #9

Round answers to 2 decimal places

12 Inches = 1 Foot

3 Feet = 1 Yard

5280 Feet = 1 Mile

2.54 Centimeters = 1 Inch

1.0936 Yards = 1 Meter

10 Millimeters = 1 Centimeter

10 Centimeters = 1 Decimeter

10 Decimeters = 1 Meter

1000 Meters = 1 Kilometer

1.609 Kilometers = 1 Mile

14 Feet = _____ Centimeters

7 Kilometers = _____ Inches

49 Decimeters = _____ Inches

49 Decimeters = _____ Feet

5 Kilometers = _____ Centimeters

27 Feet = _____ Yards

45 Centimeters = _____ Millimeters

28 Meters = _____ Centimeters

18 Decimeters = _____ Feet

98 Yards = _____ Feet

93 Decimeters = _____ Yards

Name: _____

Math Unit 15

Match each item on the left with the correct item on the right.

- | | |
|----------------------------|-----------------------|
| 1. 1 tablespoon (tbsp) • | • 30 milliliters (ml) |
| 2. 1 ounce (oz.) • | • 1 liter (l) |
| 3. 1 teaspoon (tsp) • | • 15 milliliters (ml) |
| 4. 1 tablespoon (tbsp) • | • 2 tablespoon (tbsp) |
| 5. 1 ounce (oz) • | • 5 milliliters (ml) |
| 6. 1000 milliliters (ml) • | • 3 teaspoons (tsp) |



Name: _____

Convert from or to: oz, tsp or tbsp as requested.

Convert to or from ounces, teaspoons, tablespoons.

1. 30 tsp = _____ fl oz 2. 44 tbsp = _____ tsp

3. 48 tbsp = _____ fl oz 4. 5 tbsp = _____ tsp

5. 6 tbsp = _____ fl oz 6. 36 fl oz = _____ tsp

7. 47 tbsp = _____ fl oz + tbsp 8. 19 tsp = _____ tbsp + tsp

9. 7 tsp = _____ tbsp 10. 21 fl oz = _____ tsp

11. 34 fl oz = _____ tsp 12. 28 fl oz = _____ tsp

13. 5 tsp = _____ fl oz 14. 9 fl oz = _____ tsp

15. 40 fl oz = _____ tsp 16. 6 fl oz = _____ tbsp

Name: _____

Converting Liters and Milliliters

Complete the tables below and answer the questions that follow.

liters	1		9	
milliliters		5,000		30,000

milliliters	4,000			550,000
liters		6	23	

rule: multiply by 1,000

rule: divide by 1,000

- a. How many liters are in 5,000 milliliters? _____
- b. How many milliliters are in 23 liters? _____
- c. How many milliliters are in 9 liters? _____
- d. How many liters are in 550,000 milliliters? _____
- e. How many liters are in 20,000 milliliters? _____
- f. How many milliliters are in 100 liters? _____
- g. How many milliliters are in 11 liters? _____
- h. How many liters are in 890,000 milliliters? _____
- i. Brenda has a 1 liter bottle of shampoo that is only half-full. About how many milliliters of shampoo does she have in the bottle? _____
- j. Mr. Perkins changed the oil in his car. He bought 6 liters of oil. He put 4,500 mL in his car. How many milliliters of oil did he have left? _____

Measurement Conversion Word Problems - Liquid Volume

1. Mrs. Smith is planning a class party for 18 students. She will be serving apple juice. If she serves 250 ml per student, how many liters of juice will she need to buy?

_____ liters

2. Mr. Green's lawn mower holds 600 milliliters of gasoline in the tank. He just filled his 6 liter gas can at the station. How many times will he be able to fill his lawn mower tank from the gas can?

3. While Justin is in training, he is to drink 500 milliliters of water 4 times per day. How many liters of water will that be for one week?

_____ liters

4. A punch recipe calls for 3 liters ginger ale, 1.5 liters tropical fruit juice, and 500 milliliters pineapple juice. How much punch will the recipe make?

_____ liters

5. Sean has 3 2-liter bottles of soda. If he divides the soda equally between himself and his 11 friends, how much soda will each person have?

_____ milliliters

6. Ann is baking 2 cakes, brownies, cookies and 2 pies for the bake sale. The recipes call for milk in the following amounts: 230 ml, 50 ml, 120 ml, 200 ml, 300 ml, and 100 ml. How much milk does she need in all?

_____ liters

Name: _____

Math Unit 16-18

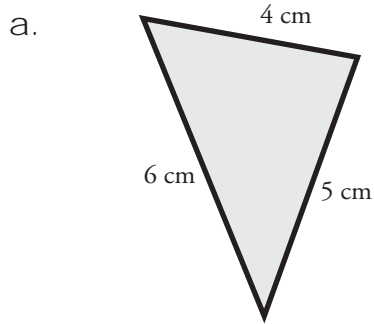
Match each item on the left with the correct item on the right.

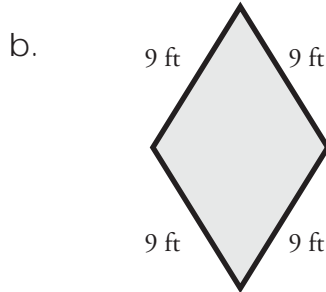
- | | |
|--|--|
| 1. The perimeter of a polygon • | • $\frac{1}{2}$ its base times its height |
| 2. The area of a rectangle • | • Right triangle, isosceles triangle, equilateral triangle |
| 3. The area of a square • | • one of its sides squared |
| 4. The volume of a rectangular solid • | • 2 times Pi times its radius |
| 5. The area of a triangle • | • Pi times its radius squared |
| 6. Three types of triangles • | • 3.14 |
| 7. Pi • | • The sum of the length of its sides |
| 8. The circumference of a circle • | • its length time its width times its height |
| 9. The area of a circle • | • Its base times its height |

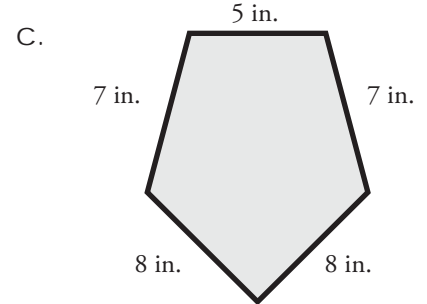
Name: _____

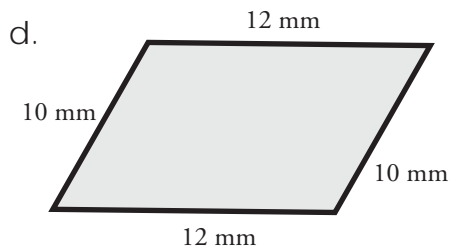
Perimeter of a Polygon

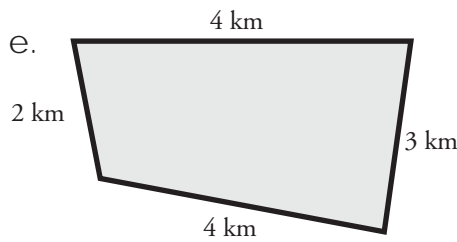
Find the perimeter of each shape by adding the lengths of each side. Be sure to include the units in your answer.

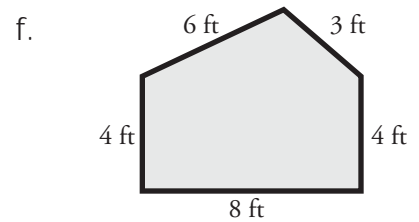


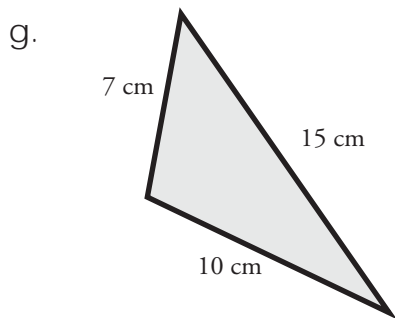


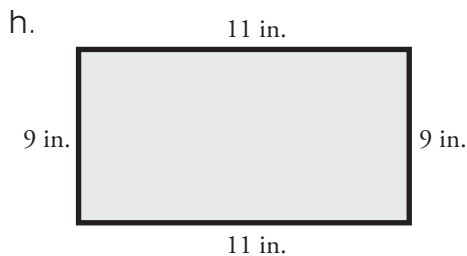


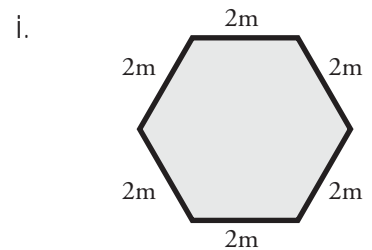






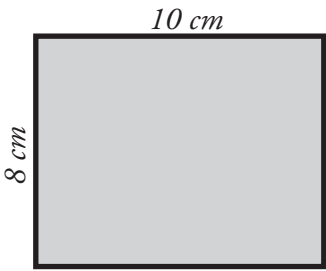






Name: _____

Area of a Rectangle



To find the area of a rectangle, use the formula **length x width = area**. This formula is often written as **$l \times w = A$** .

The rectangle pictured here has a length of 10 cm and a width of 8 cm.

$$l = 10 \text{ cm}$$

$$w = 8 \text{ cm}$$

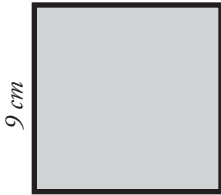
$$10 \text{ cm} \times 8 \text{ cm} = 80 \text{ cm}^2$$

Note that the area's unit is written as cm^2 .

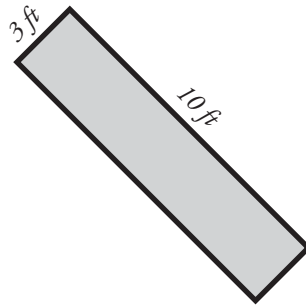
This is said as "square centimeters" or "centimeters squared".

Find the area of each rectangle.

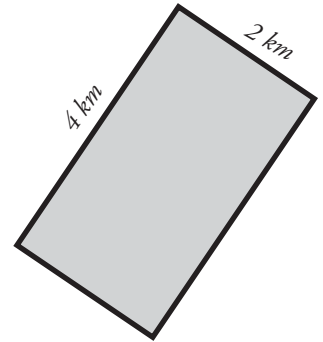
a.



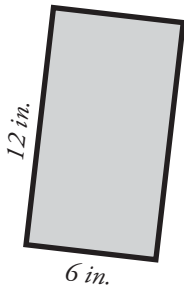
b.



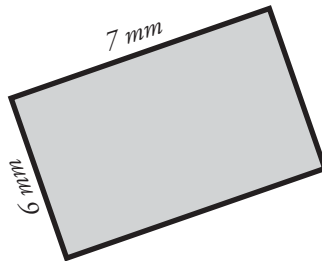
c.



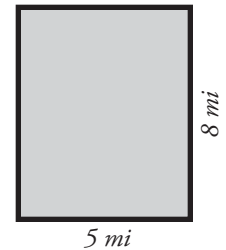
d.



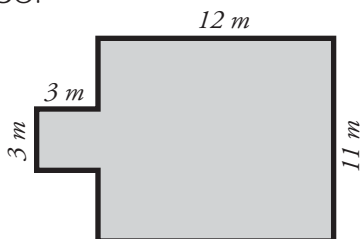
e.



f.



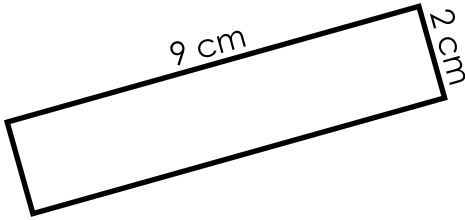
Challenge: Find the area of the polygon. All corners are 90° . Use the back if you need work space.



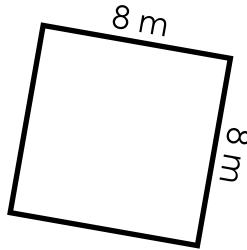
Name: _____

Areas of Rectangles

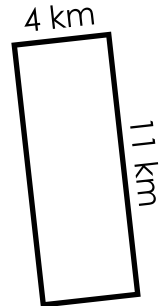
Find the areas of the rectangles. Be sure to include the units in your answer.



$A =$ _____



$A =$ _____



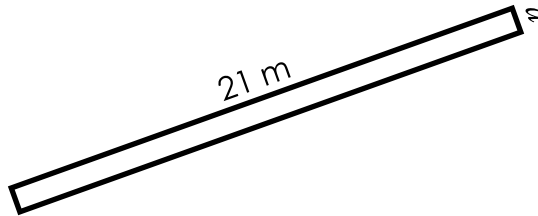
$A =$ _____

Find the lengths of the unknown sides. Be sure to include the units in your answer.



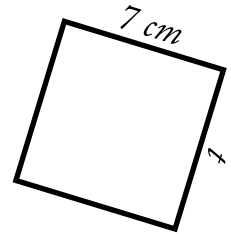
$A = 36 \text{ mm}^2$

Side $c =$ _____



$A = 21 \text{ m}^2$

Side $a =$ _____



$A = 49 \text{ cm}^2$

Side $t =$ _____

A rectangle has a width of 20 m and an area of 60 m.
What is the length of the rectangle? _____

A rectangle has an area of 36 mm². All of the sides
are the same length.
What is the length of a single side? _____

Math Unit 16-18

Match each item on the left with the correct item on the right.


- | | |
|--|--|
| 1. The perimeter of a polygon • | • $\frac{1}{2}$ its base times its height |
| 2. The area of a rectangle • | • Right triangle, isosceles triangle, equilateral triangle |
| 3. The area of a square • | • one of its sides squared |
| 4. The volume of a rectangular solid • | • 2 times Pi times its radius |
| 5. The area of a triangle • | • Pi times its radius squared |
| 6. Three types of triangles • | • 3.14 |
| 7. Pi • | • The sum of the length of its sides |
| 8. The circumference of a circle • | • its length times its width times its height |
| 9. The area of a circle • | • Its base times its height |

Name: _____

Area of a Triangle

To find the area of a triangle, use the formula **area = $\frac{1}{2}$ x base x height** or **A = $\frac{1}{2}$ x b x h**.

example:



4 cm
70 mm

$A = \frac{1}{2} \times b \times h$

base = 70 mm (7 cm)

height = 4 cm

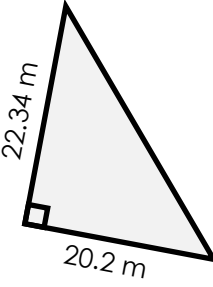
$A = \frac{1}{2} \times 7 \text{ cm} \times 4 \text{ cm}$

$A = \frac{1}{2} \times 28 \text{ cm}^2$

$A = 14 \text{ cm}^2$

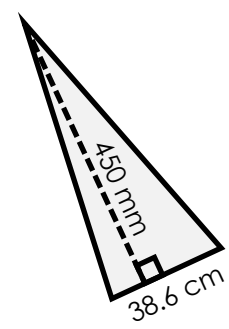
Find the area of each triangle. Some triangles have mixed units.

a.



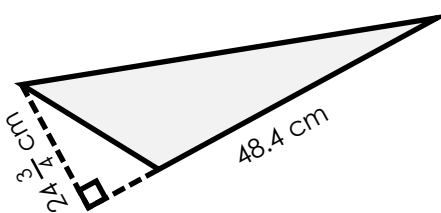
area = _____

b.



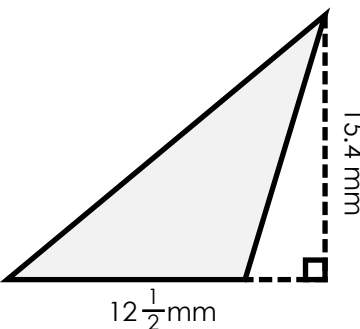
area = _____

c.



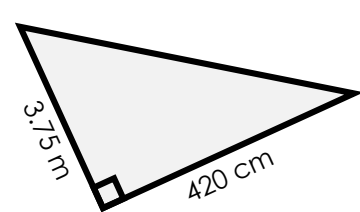
area = _____

d.



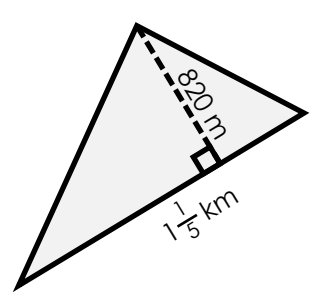
area = _____

e.



area = _____

f.



area = _____

Find the area of each triangle using the base and height measurements.

g. **b** = 75.33 meters
 h = 68 meters

area = _____

h. **b** = 47.2 centimeters
 h = 595 millimeters

area = _____

i. **b** = .875 meters
 h = 92 centimeters

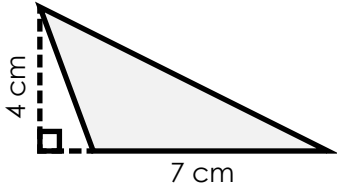
area = _____

Name: _____

Area of a Triangle

To find the area of a triangle, use the formula **area = $\frac{1}{2}$ x base x height** or **$A = \frac{1}{2} \times b \times h$** .

example:



$$A = \frac{1}{2} \times b \times h$$

$$\text{base} = 7 \text{ cm}$$

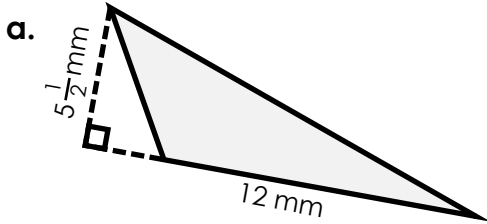
$$\text{height} = 4 \text{ cm}$$

$$A = \frac{1}{2} \times 7 \text{ cm} \times 4 \text{ cm}$$

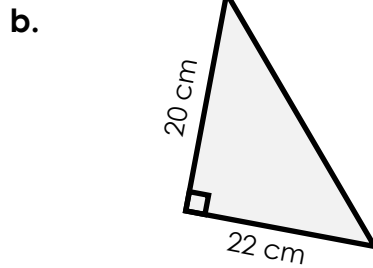
$$A = \frac{1}{2} \times 28 \text{ cm}^2$$

$$A = 14 \text{ cm}^2$$

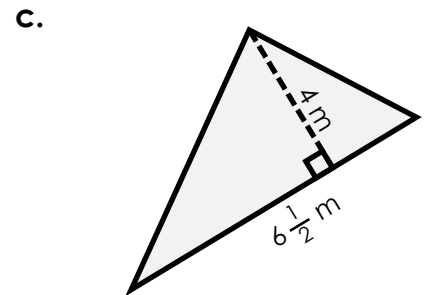
Find the area of each triangle.



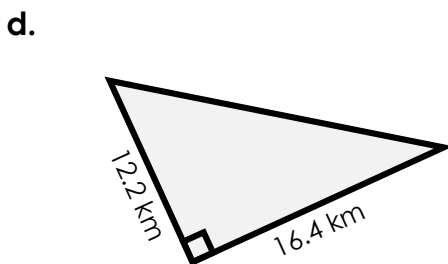
area = _____



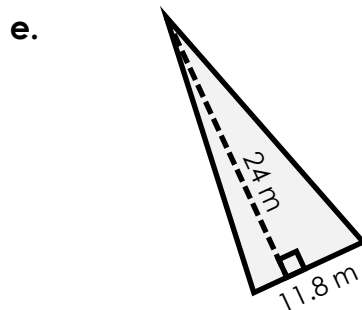
area = _____



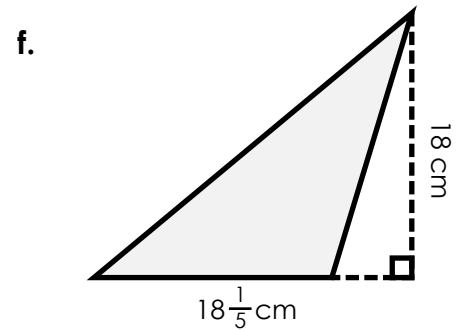
area = _____



area = _____



area = _____



area = _____

Find the area of each triangle using the base and height measurements.

g. $b = 37$ millimeters
 $h = 22$ millimeters

area = _____

h. $b = 62.5$ kilometers
 $h = 20$ kilometers

area = _____

i. $b = 44.6$ meters
 $h = 40.3$ meters

area = _____

Name: _____

Area of Rectangles & Triangles

Area of a Triangle

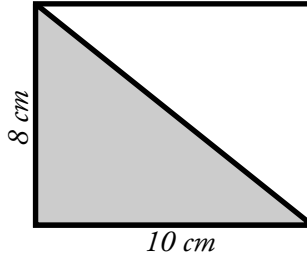
$$\frac{1}{2} \times (b \times h) = A$$

To find the area of a triangle, multiply $\frac{1}{2}$ x **base** x **height**.

Area of a Rectangle

$$l \times w = A$$

To find the area of a rectangle, multiply **length** x **width**.



Area of the shaded triangle:

$$b = 10 \text{ cm}$$

$$h = 8 \text{ cm}$$

$$\frac{1}{2} \times 10 \text{ cm} \times 8 \text{ cm} = 40 \text{ cm}^2$$

Area of the rectangle:

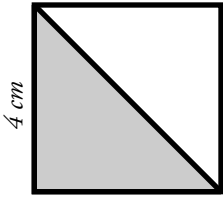
$$l = 10 \text{ cm}$$

$$w = 8 \text{ cm}$$

$$10 \text{ cm} \times 8 \text{ cm} = 80 \text{ cm}^2$$

Find the area of each rectangle and shaded triangle.

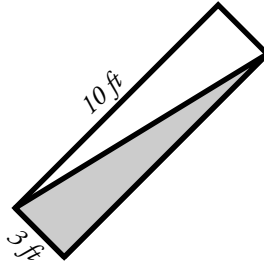
a.



area of the square = _____

area of the triangle = _____

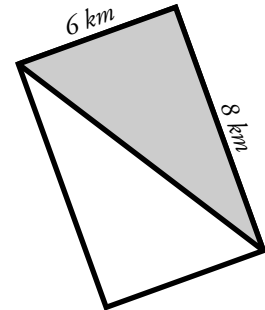
b.



area of the rectangle = _____

area of the triangle = _____

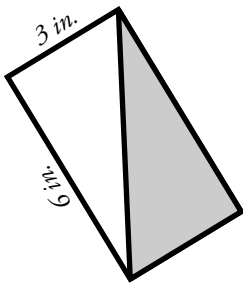
c.



area of the rectangle = _____

area of the triangle = _____

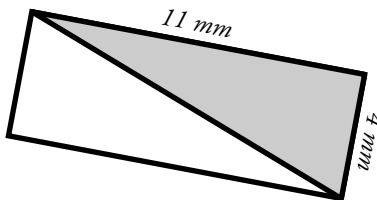
d.



area of the rectangle = _____

area of the triangle = _____

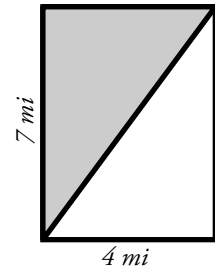
e.



area of the rectangle = _____

area of the triangle = _____

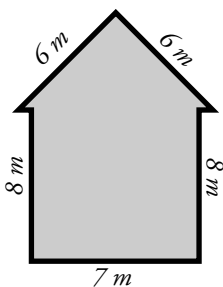
f.



area of the rectangle = _____

area of the triangle = _____

Challenge: Find the area of the polygon. Use the back if you need work space.



Name: _____

Math Unit 16-18

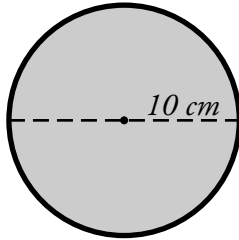
Match each item on the left with the correct item on the right.

- | | |
|---|---|
| <p>1. The perimeter of a polygon •</p> | <p>• $\frac{1}{2}$ its base times its height</p> |
| <p>2. The area of a rectangle •</p> | <p>• Right triangle, isosceles triangle, equilateral triangle</p> |
| <p>3. The area of a square •</p> | <p>• one of its sides squared</p> |
| <p>4. The volume of a rectangular solid •</p> | <p>• 2 times Pi times its radius</p> |
| <p>5. The area of a triangle •</p> | <p>• Pi times its radius squared</p> |
| <p>6. Three types of triangles •</p> | <p>• 3.14</p> |
| <p>7. Pi •</p> | <p>• The sum of the length of its sides</p> |
| <p>8. The circumference of a circle •</p> | <p>• its length time its width times its height</p> |
| <p>9. The area of a circle •</p> | <p>• Its base times its height</p> |

Name: _____

Circumference of a Circle

To find the circumference of a circle, use the formula **pi x diameter = circumference**. This formula is often written as **$C = \pi \times d$** .



The circle pictured here has a diameter of 10 cm.

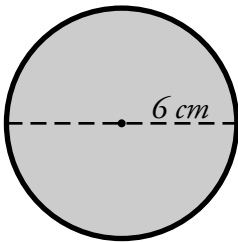
$$d = 10 \text{ cm}$$

$$\pi \approx 3.14$$

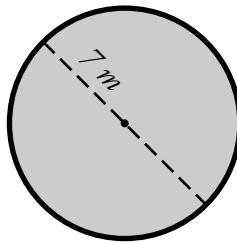
$$10 \text{ cm} \times 3.14 = 31.4 \text{ cm}$$

Find the circumference of each circle. Use 3.14 for pi.

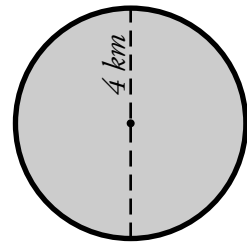
a.



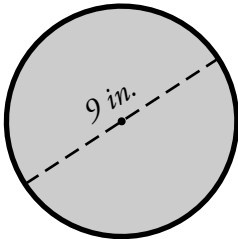
b.



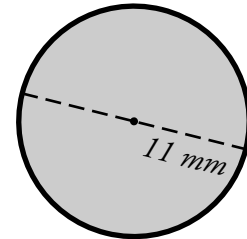
c.



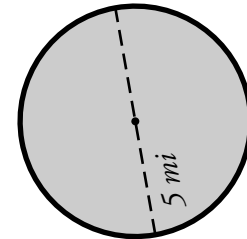
d.



e.



f.

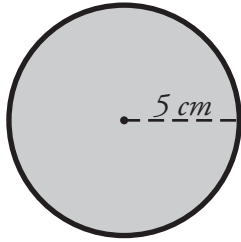


g. Karla and Jeremy have a circular pool with a diameter of 12 feet. What is the circumference of the pool?

Name: _____

Area of a Circle

To find the area of a circle, use the formula **pi x radius² = area**.
This formula is often written as **$A = \pi r^2$** .



The circle pictured here has a radius of 5 cm.

$$r = 5 \text{ cm}$$

$$\pi \approx 3.14$$

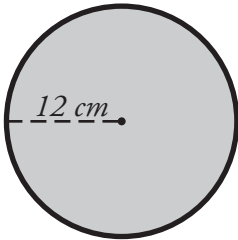
$$A = 3.14 \times (5 \text{ cm} \times 5 \text{ cm})$$

$$A = 3.14 \times 25 \text{ cm}^2$$

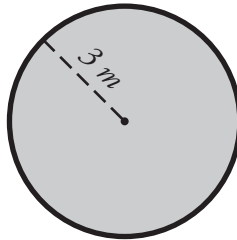
$$A = 78.50 \text{ cm}^2$$

Find the area of each circle. Use 3.14 for pi.

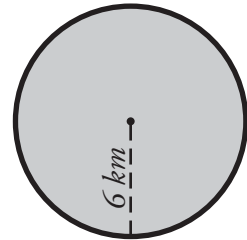
a.



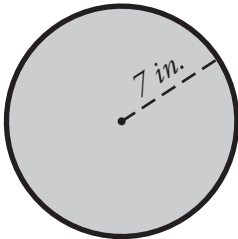
b.



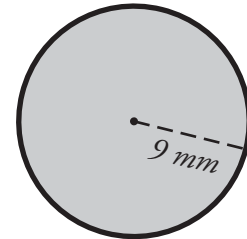
c.



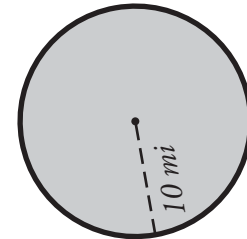
d.



e.



f.

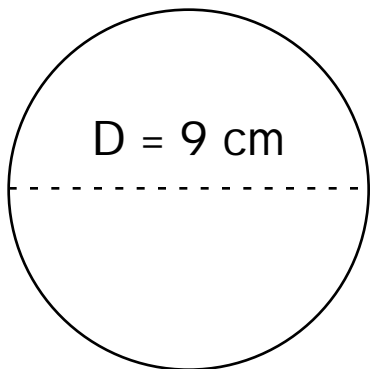


- g. Kaylee and Rory have a circular swimming pool. The pool has a cover that fits snugly over the top of it. If the radius of the pool is 11 ft, what is the surface area of the cover?

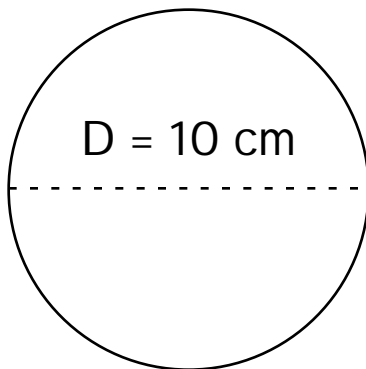
Name: _____ Date: _____

Calculate Area Practice - Page 1

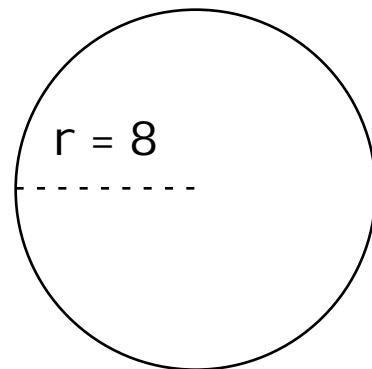
Calculate the area.



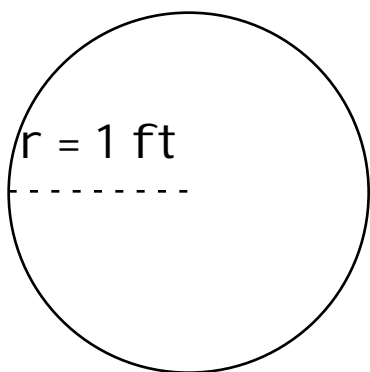
Area = _____



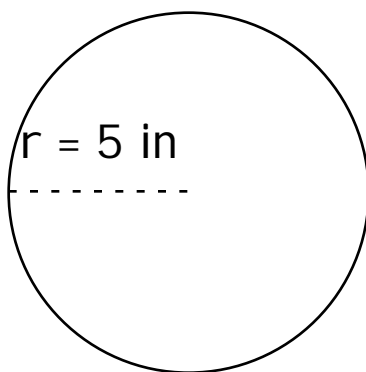
Area = _____



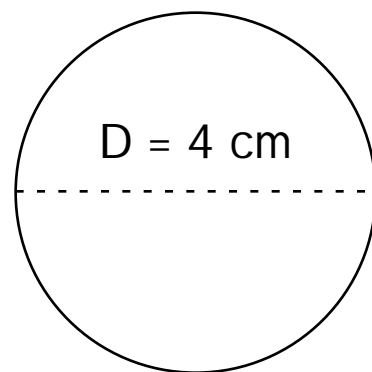
Area = _____



Area = _____



Area = _____



Area = _____

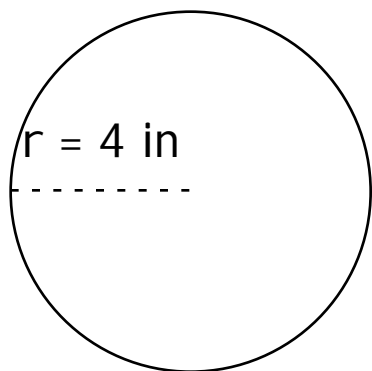
Area: Pi (3.14) x the radius (r) squared

Diameter = radius x 2

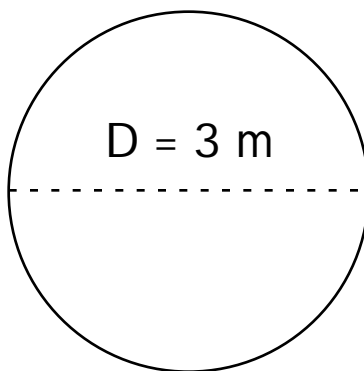
Name: _____ Date: _____

Calculate Area Practice - Page 2

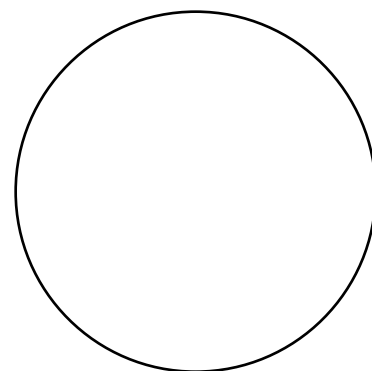
Calculate the area.



Area = _____

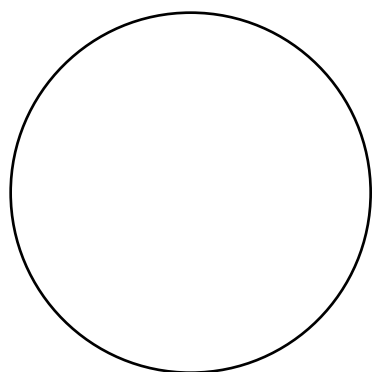


Area = _____



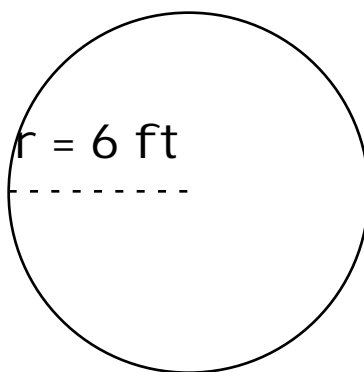
$C = 2 \text{ cm}$

Area = _____

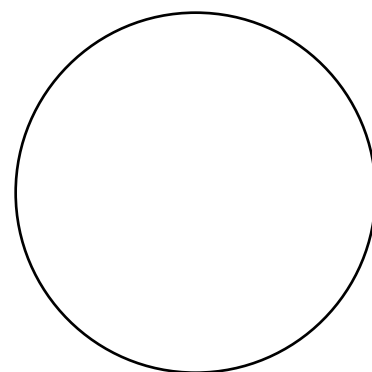


$C = 8 \text{ m}$

Area = _____



Area = _____



$C = 7 \text{ ft}$

Area = _____

Area: $\text{Pi} (3.14) \times \text{the radius } (r) \text{ squared}$

Diameter (D) = radius $\times 2$; **Circumference** = $D \times \text{Pi}$

Area from Circumference:

Circumference = $\text{Pi} \times \text{diameter} = \text{Pi} \times (2 \times \text{radius})$

Radius = $\text{Circumference} / (2 \times \text{Pi})$

Once you have the radius, use the formula:

Area = $\text{Pi} \times \text{the radius } (r) \text{ squared}$