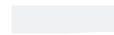


NAME: _____



Activity One



a) Complete the following measurement word problems below.

- i) A rectangle has an area of 12 square inches (77.5 square cm). If the length is 3 inches (7.6 cm), what is the width? _____
- ii) A student was able to toss a softball 50 yards (45.7 meters) during a field day competition. How many inches (cm) did the softball travel? _____
- iii) An equilateral triangle has a perimeter of 18 inches (45.7 cm). What is the length of each side? _____
- iv) The volume of a cube is 1.7 cubic inches (27 cubic cm). What is the length of each side? _____
- v) Janice uses a 1 gallon (4 liter) jug to fill up an aquarium. She fills the jug six times, and empties five and one-half jugs of water into the aquarium. How many quarts (liters) of water does the aquarium hold? _____
- vi) A square has an area of 22 sq inches (144 sq cm). What is the perimeter of the square? _____
- vii) A circle has a diameter of 2 inches (5 cm). What is its area? _____
- viii) The base of a triangle measures 7 inches (18 cm)? The area is 8.5 sq in (54 sq cm). What is the height of the triangle? _____
- ix) A regular hexagon has a perimeter of 11 sq in (72 sq cm). What is the length of each side? _____
- x) Albert measures the temperature on a cold winter day. It is 18°F (-8°C). What would the temperature be 15 degrees warmer? _____
- xi) The length of a tree shadow is 18 feet (5.5 meters). How many inches (cm) is the shadow? _____
- xii) The area of a basketball court is 600 square feet (55.5 square meters). If the length is 30 feet (9 meters), how wide is the court? _____
- xiii) Carlos left home at 7:30 am to walk to school. It took him one-quarter of an hour to arrive at a local market, where he bought milk for lunch. It took him one third of that time to get to school. How long, in total, did it take Carlos to walk to school?

- xiv) A car measures a length of 236 inches (600 cm). How many feet (meters) long is it?

- xv) A round trip between Millville and Boonesboro is 52,800 feet (16,093.4 meters). How many miles (km) is this trip one way? _____

NAME: _____



Activity Two

a) Look at the measurements below. List three other standard or metric equivalents that equal the same measurement.

i) 1500 milligrams = _____ = _____ = _____

ii) 12500 ounces = _____ = _____ = _____

iii) 185 kilograms = _____ = _____ = _____

iv) 32 tons = _____ = _____ = _____

v) 1290 grams = _____ = _____ = _____

vi) 4500 pounds = _____ = _____ = _____

vii) 800 centigrams = _____ = _____ = _____

viii) 29,200 ounces = _____ = _____ = _____

ix) 2575 milligrams = _____ = _____ = _____

x) 895 decagrams = _____ = _____ = _____

xi) 950 grams = _____ = _____ = _____

xii) 8200 pounds = _____ = _____ = _____

xiii) 3400 milligrams = _____ = _____ = _____

xiv) 74 kilograms = _____ = _____ = _____

xv) 2950 grams = _____ = _____ = _____

xvi) 5.5 tons = _____ = _____ = _____

xvii) 19 kilograms = _____ = _____ = _____

xviii) 245 grams = _____ = _____ = _____

xix) 18,295 milligrams = _____ = _____ = _____

xx) 36000 ounces = _____ = _____ = _____



Activity Three

a) Objects on the moon weigh about $\frac{1}{6}$ of their weight on the Earth because the moon has $\frac{1}{6}$ the gravity of the Earth. For this reason, a man weighing 100 pounds (45.5 kilograms) on Earth weighs about 16.7 pounds (7.6 kilograms) on the moon. You have been placed in charge of opening a zoo at a space station on the moon. Based on the gravity found on the moon, what would the following animals weigh at the zoo?

	Animal	Weight on Earth	Weight on the Moon
i)	Aardvark	180 pounds (81.7 kg)	
ii)	Alligator	500 pounds (226.8 kg)	
iii)	Baboon	90 pounds (40.8 kg)	
iv)	Bear (black)	450 pounds (204.1 kg)	
v)	Bison	2200 pounds (997.9 kg)	
vi)	Cheetah	140 pounds (63.5 kg)	
vii)	Coyote	20 pounds (9.1 kg)	
viii)	Elephant (African)	8000 pounds (3628.7 kg)	
ix)	Giraffe	1800 pounds (816.5 kg)	
x)	Hippopotamus	4500 pounds (2041.2 kg)	
xi)	Koala Bear	18 pounds (8.2 kg)	
xii)	Leopard	100 pounds (45.4 kg)	
xiii)	Lion	400 pounds (181.4 kg)	
xiv)	Mongoose	10 pounds (4.5 kg)	
xv)	Monkey	21 pounds (9.5 kg)	
xvi)	Rhinoceros	4000 pounds (1814.4 kg)	
xvii)	Tiger (Bengal)	600 pounds (272.2 kg)	
xviii)	Turtle	300 pounds (136.1 kg)	
xix)	Wolverine	25 pounds (11.3 kg)	
xx)	Zebra	800 pounds (362.9 kg)	

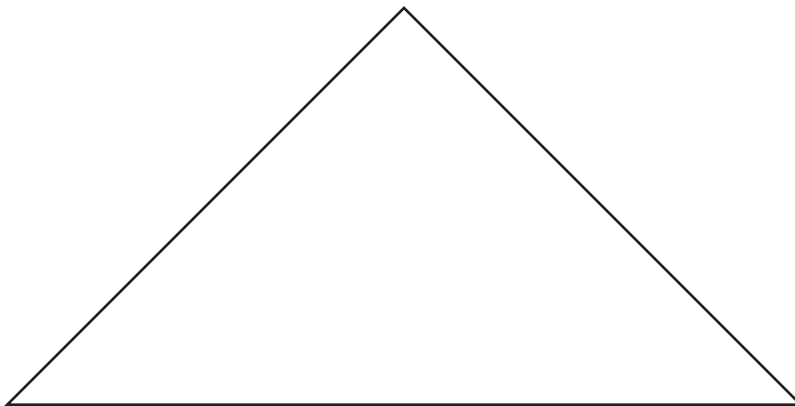
NAME: _____



Activity Four



a) Suppose you had to explain how to find the area and perimeter of the triangle below. In a well articulated paragraph (including at least five sentences) explain how a person would find the area and perimeter. Then, find the actual area and perimeter of the triangle and label it below.



NAME: _____



Activity Five

a) Convert the following temperatures in Fahrenheit to Celsius.

- i) $18^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ ii) $25^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ iii) $47^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$
- iv) $84^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ v) $160^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ vi) $-4^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$
- vii) $320^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ viii) $188^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ ix) $270^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$
- x) $-40^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ xi) $99^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ xii) $318^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$
- xiii) $72^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ xiv) $-100^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ xv) $450^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$
- xvi) $800^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ xvii) $325^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$ xviii) $56^{\circ}\text{F} =$ _____ $^{\circ}\text{C}$

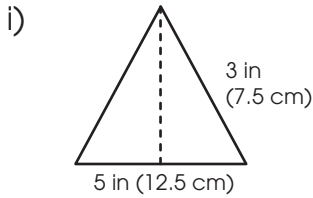
b) Convert the following temperatures in Celsius to Fahrenheit.

- i) $12^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ ii) $80^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ iii) $101^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$
- iv) $92^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ v) $-5^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ vi) $200^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$
- vii) $120^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ viii) $45^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ ix) $-18^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$
- x) $47^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ xi) $290^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ xii) $32^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$
- xiii) $158^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ xiv) $492^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ xv) $-27^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$
- xvi) $44^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ xvii) $-9^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$ xviii) $188^{\circ}\text{C} =$ _____ $^{\circ}\text{F}$

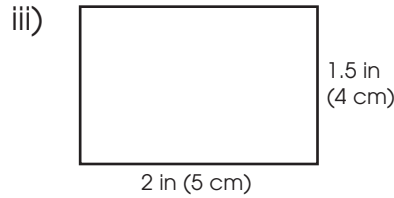


Activity Six

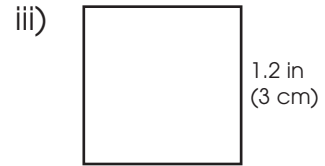
a) Look at the shapes below. The measurements of each shape are labeled. Use these measurements to find the area of each shape. Then, use the measurements to find the perimeter of each shape as well. Note: measurements are not to scale.



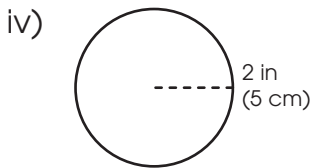
Area = _____
Perimeter = _____



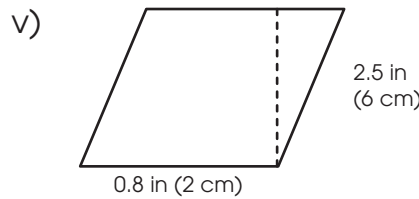
Area = _____
Perimeter = _____



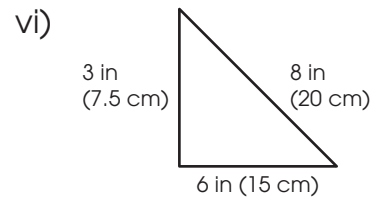
Area = _____
Perimeter = _____



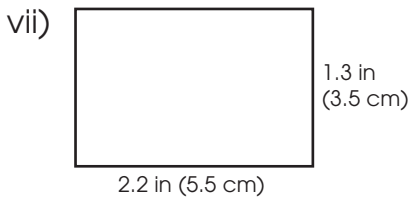
Area = _____
Perimeter = _____



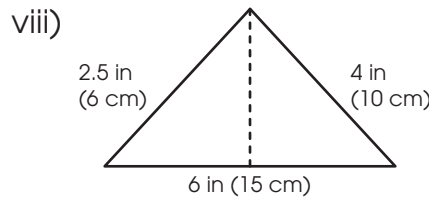
Area = _____
Perimeter = _____



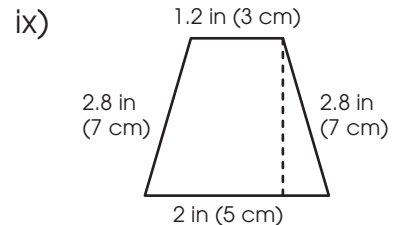
Area = _____
Perimeter = _____



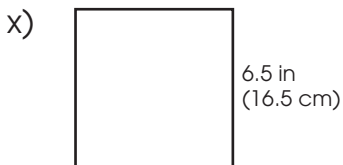
Area = _____
Perimeter = _____



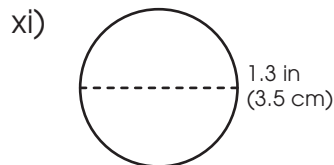
Area = _____
Perimeter = _____



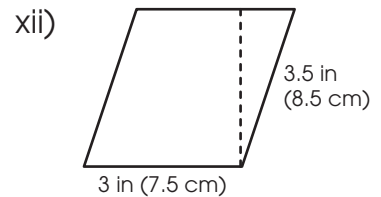
Area = _____
Perimeter = _____



Area = _____
Perimeter = _____



Area = _____
Circumference = _____



Area = _____
Perimeter = _____

1.**a)**

- i) 4 in (10.2 cm)
- ii) 1800 in (4570 cm)
- iii) 6 in (15.23 cm)
- iv) 1.19 in (3 cm)
- v) 22 quarts (22 liters)
- vi) 18.8 in (48 cm)
- vii) 3.14 sq in (19.6 sq cm)
- viii) 2.43 in (6 cm)
- ix) 1.83 in (12 cm)
- x) 33°F (7°C)
- xi) 216 inches (550 cm)
- xii) 20 feet (6.16 meters)
- xiii) 20 minutes
- xiv) 19.7 feet (6 meters)
- xv) 5 miles (8.045 km)

1A**2.****a)**

Answers will vary.

2A**3.****a)**

- i) 30 lbs (13.6 kg)
- ii) 83.3 lbs (37.8 kg)
- iii) 15 lbs (6.8 kg)
- iv) 75 lbs (34.02 kg)
- v) 366.7 lbs (166.32 kg)
- vi) 23.3 lbs (10.58 kg)
- vii) 3.33 lbs (1.52 kg)
- viii) 1333.33 lbs (604.78 kg)
- ix) 300 lbs (136.08 kg)
- x) 750 lbs (340.2 kg)
- xi) 3 lbs (1.37 kg)
- xii) 16.67 lbs (7.57 kg)
- xiii) 66.67 lbs (30.23 kg)
- xiv) 1.67 lbs (0.75 kg)
- xv) 3.5 lbs (1.58 kg)
- xvi) 666.67 lbs (302.4 kg)
- xvii) 100 lbs (45.37 kg)
- xviii) 50 lbs (22.68 kg)
- xix) 4.17 lbs (1.88 kg)
- xx) 133.33 lbs (60.48 kg)

3A**4.****a)**

Answers will vary. Paragraphs should explain that a person must determine the lengths of each side and add them together to find the perimeter. A person then needs to determine the height. The person multiplies the height by the length of the base and divides by two to find the area. Area is measured in square units while perimeter is measured in units. The base of the triangle is 4.1 inches (10.5 cm), the side lengths are 3 inches (7.5 cm), and the height is 2.1 inches (5.3 cm). The area of the triangle is 4.3 square inches (27.8 square cm). The perimeter of the triangle is 10.1 inches (25.5 cm).

4A**5.****a)**

- i) 18°F = -7.78°C
- ii) 25°F = -3.89°C
- iii) 47°F = 8.33°C
- iv) 84°F = 28.89°C
- v) 160°F = 71.11°C
- vi) -4°F = -20°C
- vii) 320°F = 160°C
- viii) 188°F = 86.67°C
- ix) 270°F = 132.22°C
- x) -40°F = -40°C
- xi) 99°F = 37.22°C
- xii) 318°F = 158.89°C
- xiii) 72°F = 22.22°C
- xiv) -100°F = -73.33°C
- xv) 450°F = 232.22°C
- xvi) 800°F = 426.67°C
- xvii) 325°F = 162.78°C
- xviii) 56°F = 13.33°C

5A**b)**

- i) 12°C = 53.6°F
- ii) 80°C = 176°F
- iii) 101°C = 213.8°F
- iv) 92°C = 197.6°F
- v) -5°C = 23°F
- vi) 200°C = 392°F
- vii) 120°C = 248°F
- viii) 45°C = 113°F
- ix) -18°C = -0.4°F
- x) 47°C = 116.6°F
- xi) 290°C = 554°F
- xii) 32°C = 89.6°F
- xiii) 158°C = 316.4°F
- xiv) 492°C = 917.6°F
- xv) -27°C = -16.6°F
- xvi) 44°C = 111.2°F
- xvii) -9°C = 15.8°F
- xviii) 188°C = 370.4°F

6.**a)**

- i) Area = 7.5 sq in (46.9 sq cm), Perimeter = 11 in (27.5 cm)
- ii) Area = 3 sq in (20 sq cm), Perimeter = 7 in (18 cm)
- iii) Area = 1.44 sq in (9 sq cm), Perimeter = 4.8 in (12 cm)
- iv) Area = 12.56 sq in (78.5 sq cm), Circumference = 12.56 in (31.4 cm)
- v) Area = 2 sq in (12 sq cm), Perimeter = 6.6 in (16 cm)
- vi) Area = 9 sq in (56.25 sq cm), Perimeter = 17 in (42.5 cm)
- vii) Area = 2.86 sq in (19.25 sq cm), Perimeter = 7 in (18 cm)
- viii) Area = 7.5 sq in (45 sq cm), Perimeter = 14 in (35 cm)
- ix) Area = 4.48 sq in (28 sq cm), Perimeter = 8.8 in (22 cm)
- x) Area = 42.25 sq in (272.25 sq cm), Perimeter = 26 in (66 cm)
- xi) Area = 1.33 sq in (1.53 sq cm), Circumference = 4.08 in (10.99 cm)
- xii) Area = 10.5 sq in (63.75 sq cm), Perimeter = 13 in (32 cm)

6A

(these answers are for the 6 free bonus pages, see page 3 for download instructions)