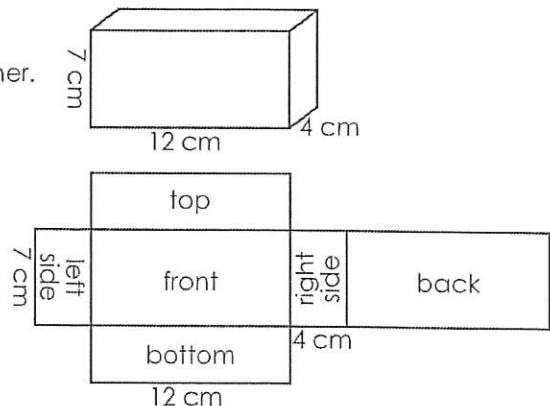


Name: _____

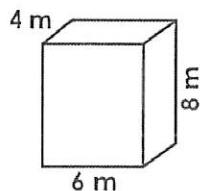
Surface Area

Surface area is the total area of all faces of a figure. To find the surface area of a rectangular prism, imagine it unfolded into six rectangles. Find the area of each rectangle and add them together. The sum is the surface area of the rectangular prism.

area of left side:	$4 \text{ cm} \times 7 \text{ cm} =$	28 cm^2
area of top:	$4 \text{ cm} \times 12 \text{ cm} =$	48 cm^2
area of front:	$7 \text{ cm} \times 12 \text{ cm} =$	84 cm^2
area of bottom:	$4 \text{ cm} \times 12 \text{ cm} =$	48 cm^2
area of right side:	$4 \text{ cm} \times 7 \text{ cm} =$	28 cm^2
area of back:	$7 \text{ cm} \times 12 \text{ cm} =$	$+ 84 \text{ cm}^2$
surface area =		320 cm^2



Find the surface area of the following figures.



area of left side: _____ x _____ = _____

area of top: _____ x _____ = _____

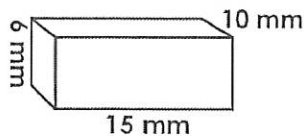
area of front: _____ x _____ = _____

area of bottom: _____ x _____ = _____

area of right side: _____ x _____ = _____

area of back: _____ x _____ = _____

surface area = _____



area of left side: _____ x _____ = _____

area of top: _____ x _____ = _____

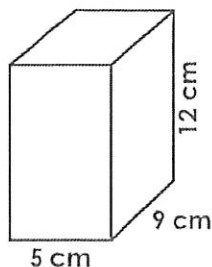
area of front: _____ x _____ = _____

area of bottom: _____ x _____ = _____

area of right side: _____ x _____ = _____

area of back: _____ x _____ = _____

surface area = _____



area of left side: _____ x _____ = _____

area of top: _____ x _____ = _____

area of front: _____ x _____ = _____

area of bottom: _____ x _____ = _____

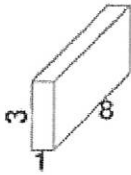
area of right side: _____ x _____ = _____

area of back: _____ x _____ = _____

surface area = _____

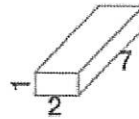
Volume/Surface Area

1 a.



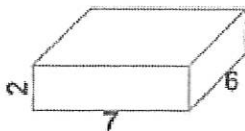
Find the surface area of this rectangular prism.

1 b.



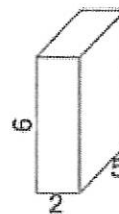
Find the surface area of this rectangular prism.

2 a.



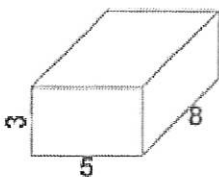
Find the surface area of this rectangular prism.

2 b.



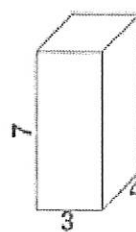
Find the volume of this rectangular prism.

3 a.



Find the volume of this rectangular prism.

3 b.

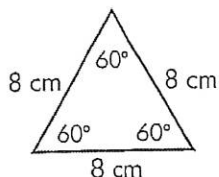


Find the volume of this rectangular prism.

Triangles

You can classify triangles by the lengths of their sides and the sizes of their angles.

acute
all angles less
than 90°

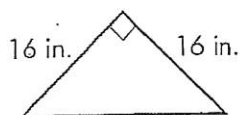


equilateral
all sides the same
length

This triangle is both
equilateral and acute.

Not all acute triangles
are equilateral.

right
one right
angle

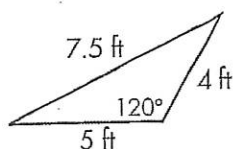


isosceles
two sides the same
length

This triangle is both
isosceles and right.

Not all right triangles
are isosceles.

obtuse
one obtuse
angle



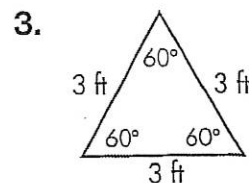
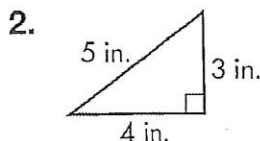
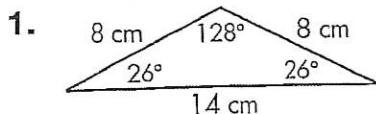
scalene
no sides the same
length

This triangle is both
scalene and obtuse.

Not all obtuse triangles
are scalene.

Remember that the sum of the measures of the angles of a triangle is 180° .

Classify each triangle by its sides and then by its angles.



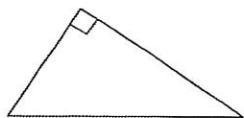
The measures of two angles of a triangle are given. Find the measure of the third angle.

4. $40^\circ, 100^\circ, \underline{\hspace{2cm}}$

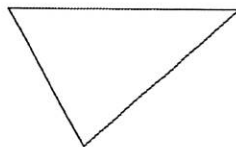
5. $14^\circ, 98^\circ, \underline{\hspace{2cm}}$

6. $38^\circ, 38^\circ, \underline{\hspace{2cm}}$

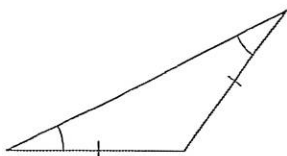
15)



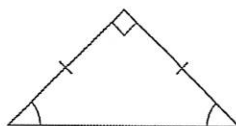
16)



17)



18)



Sketch an example of the type of triangle described. Mark the triangle to indicate what information is known. If no triangle can be drawn, write "not possible."

19) acute isosceles

20) right scalene

21) right isosceles

22) right equilateral

23) acute scalene

24) obtuse scalene

25) right obtuse

26) equilateral

Centers:

Name: _____

Center 1: Circumference with Diameter!!!!

Find the Circumference of Circle A, B, and C using the diameters of the circles.

Measure the diameter in WHOLE centimeters!!!

Example: $C = \pi d$ If the diameter is 7 cm, then do $C = \pi \times 7$ or $C = 3.14 \times 7$, so $C = 21.98 \text{ cm}$

Circle A: $C = \pi d$

Show ALL WORK!

C = _____

Circle B: $C = \pi d$

C = _____

Circle C: $C = \pi d$

C = _____

Center 2: Circumference with Radius!!

Find the Circumference of Circle A, B, and C using the radius of the circles (in WHOLE centimeters).

Example: $C = 2 \pi r$ If the radius is 4 cm, then do $C = 2 \times \pi \times 4$ or $C = 2 \times 3.14 \times 4$, so

$C = 25.12 \text{ cm}$

Circle A: $C = 2 \pi r$

Show ALL WORK!

C = _____

Circle B: $C = 2 \pi r$

C = _____

Circle C: $C = 2 \pi r$

C = _____

Center 3: The PIE TABLE!!!

Choose one of each kind of pie you like. Go back to your table and measure the radius of your favorite type (in centimeters). Be careful not to get pie on your ruler. Find the Circumference of your pie *following the steps in Center 2*. After finding it's circumference, EAT YOUR PIE!! ☺

My Favorite Pie (available): _____ It's radius: _____

Circumference = _____

Center 4: Cutie "Pi" Bracelets

Use the beads to make a bracelet to model the first 7 digits of pi (in order, with the decimal included) following the code below.

3.141592

1 = pink 3 = green decimal point = choose your color

4 = blue 9 = yellow 2 = white 5 = red

Center 5: Pi Coloring

Color and Cut out the Pi symbol, glue to a piece of construction paper and put your name and number on it.

Turn this in to the
math slot.

Center 6: Cutting Pi (read carefully)

Materials

circular object
string
scissors

diameter of your circular object. Cut as many "string diameters" from your "string circumference" as you can. How many diameters could you cut? _____

diameter. No matter what circle you use, you'll be able to cut 3 complete diameters and have a small bit of string left over. Estimate what fraction of the diameter this small piece could be (about $\frac{1}{7}$). You have "cut pi," about 3 and $\frac{1}{7}$ pieces of string, by determining how many diameters can be cut from the circumference. Tape the 3 + pieces of string onto paper and explain their significance.

To Do and Notice

Choose 1 circle. Carefully wrap string around the *circumference* of your circular object. Cut the string when it is exactly the same length as the circumference. Now take your "string circumference" and stretch it across the

Compare your data with that of others. What do you notice?

What's Going On?

This is a hands-on way to divide a circle's circumference by its

*When finished with all centers, clean up and turn this completed sheet into the math slot. ☺

Measurement Lab

Group Members:

#1 _____ 1, 2, 3, 4, 5 (Circle how hard you think you worked in the group today)
#2 _____ 1, 2, 3, 4, 5 (Circle how hard you think you worked in the group today)
#3 _____ 1, 2, 3, 4, 5 (Circle how hard you think you worked in the group today)

☉ Task #1

Measure the distance of the seat of a swing on the swingset in:

Inches: _____ Centimeters: _____ Millimeters: _____

☉ Task #2

Measure the perimeter of one of the four sections of the 4-square game in:

Feet: _____ Inches: _____ Yards: _____

Meters: _____

☉ Task #3

Measure the length of one of the bricks on the building in:

Inches: _____ Centimeters: _____ Millimeters: _____

☉ Task #4

Measure the length of one of the slide bars (the part where you sit) in:

Feet: _____ Inches: _____

☉ Task #5

Measure the width of the PE door in:

Meters: _____ Centimeters: _____ Millimeters: _____

Inches: _____

☉ Task #6

Measure the width of one section of chain link fence in:

Meters: _____ Centimeters: _____ Millimeters: _____

Feet: _____ Inches: _____

☉ Task #7

Measure the width of one section on the spider web (from metal piece to metal piece) in:

Centimeters: _____ Millimeters: _____ Inches: _____

☉ Task #8

Fill in the Blank (choice):

Measure one item of your choice in:

Meters: _____ Centimeters: _____ Millimeters: _____

Feet: _____ Inches: _____

☉ Task #9

Measure the each group member's height in inches and centimeters

Member #1: _____ inches (= _____ feet _____ inches) _____ centimeters

Member #2: _____ inches (= _____ feet _____ inches) _____ centimeters

Member #3: _____ inches (= _____ feet _____ inches) _____ centimeters