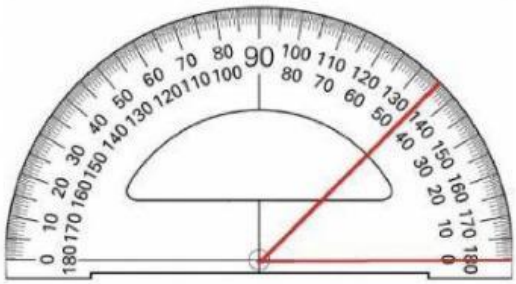
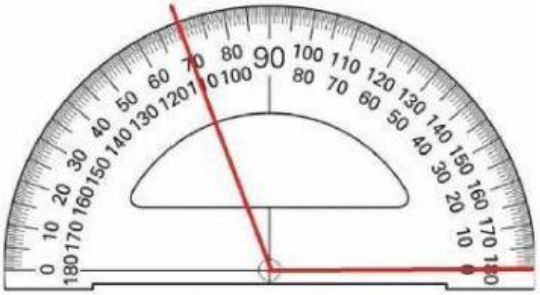
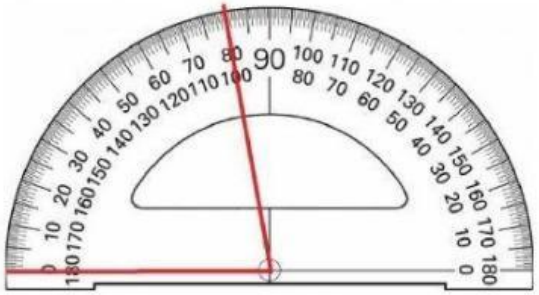
7TH Grade Math EXIT TEST – Part 3

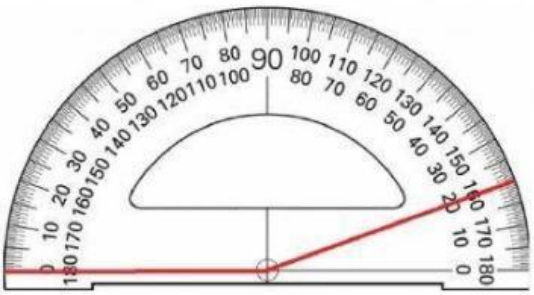
Measuring Angles with a Protractor

Hint: angles facing the right will be the inside numbers and angles facing left will be the outside numbers



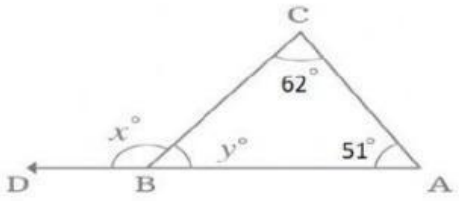






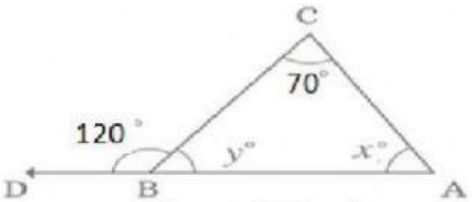
Interior & Exterior Angles of a Triangle

Hint: A straight line is 180° and the sum of all angles in a triangle is 180°. A right angle is 90°



$x =$ ☐°

$y =$ ☐°



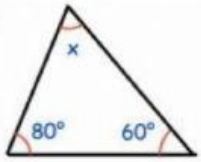
$x =$ ☐°

$y =$ ☐°

Finding the Missing Angle of a Triangle

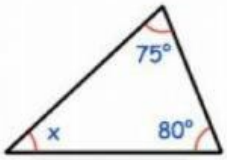
Question 1: Find the size of each missing angle.

(a)



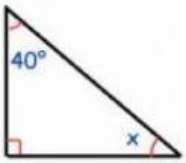
☐°

(b)



☐°

(c)



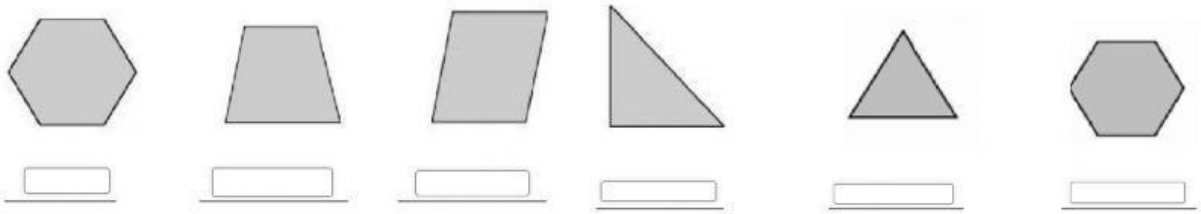
☐°

POLYGONS & POLYHEDRONS

Regular & Irregular Polygons

Irregular Polygons are 2 -dimensional (2D) shapes of which the sides and interior angles are not the same.

A regular polygon is a shape where all sides are the same length and all the interior angles are the same.



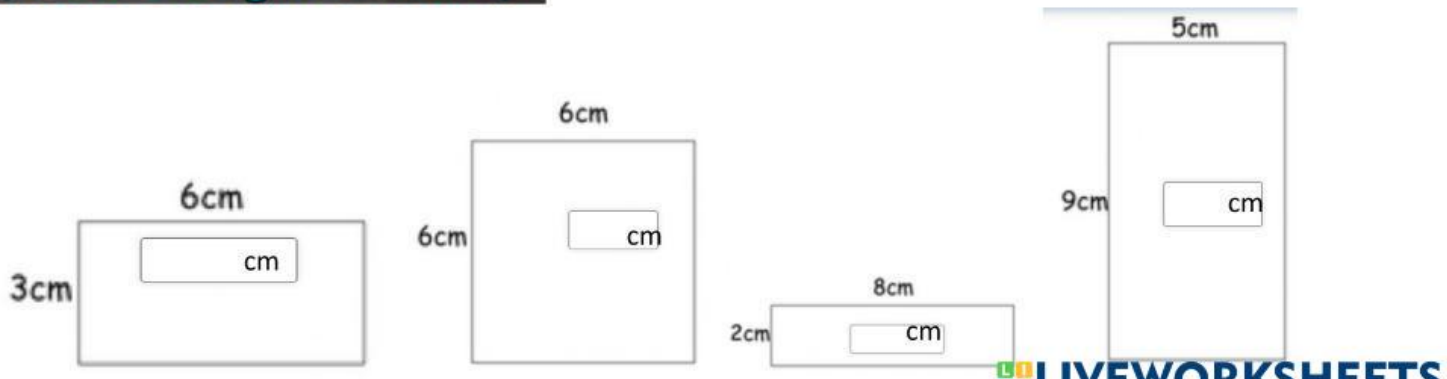
Measuring the Angle of a Polygon

Interior angles of Polygon

Number of sides(n)	(n-2) x 180^0	Total Interior angle
Triangle 3- Sides	1x180	180
Pentagon 4 – sides	X	
Hexagon 6 – sides	X	
Octagon 8- sides	X	
12- sides	X	

Area of a Rectangle

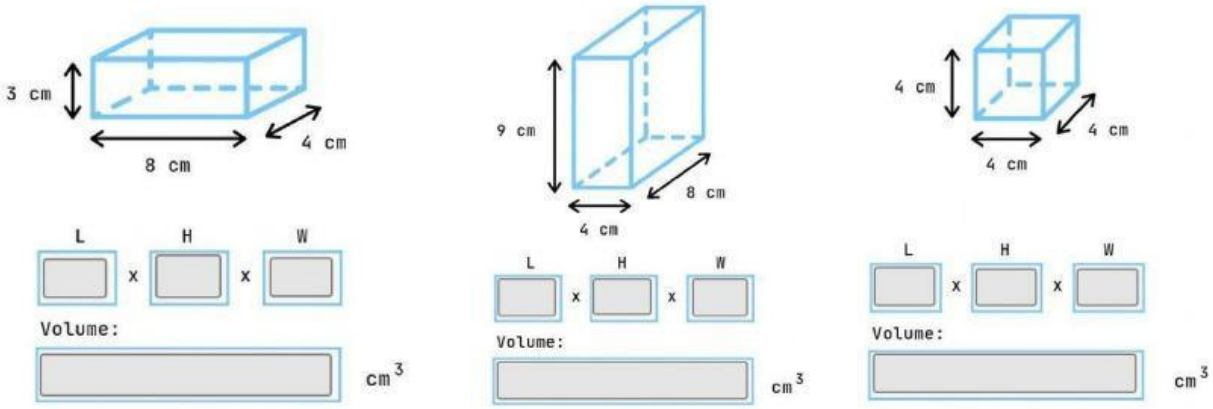
(Area = length x width)



Pentagon, Hexagon, & Octagon

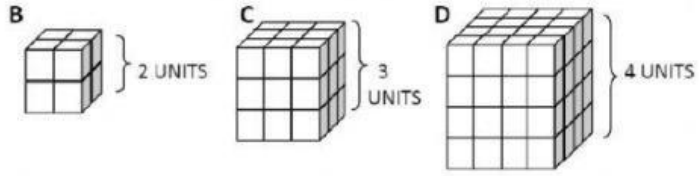
1. It has 5 sides and 5 angles
   a. Pentagon
   b. Hexagon
   c. Octagon
2. It has 6 sides and 6 angles
   a. Hexagon
   b. Octagon
   c. Pentagon
3. It has 2 rays connected by a point
   a. Side
   b. Angle
   c. Face
4. It has 8 sides and 8 angles
   a. Octagon
   b. Hexagon
   c. Pentagon

Prisms: Area & Volume



Surface Area of a Cube

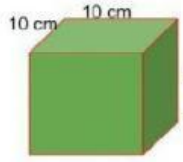
Surface Area = L x W x 6



B – Surface Area = _____ x _____ x 6 = _____

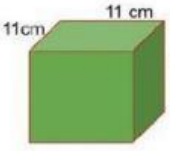
C – Surface Area = _____ x _____ x 6 = _____

D – Surface Area = _____ x _____ x 6 = _____



Area of 1 face = _____ cm x _____ cm = _____ square cm

Total surface area = _____ cm² x _____ = _____ cm²



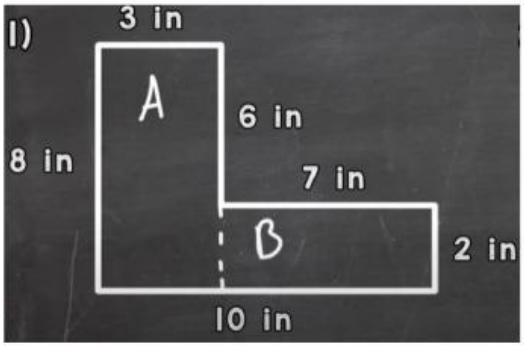
Area of 1 face = _____ cm x _____ cm = _____ square cm

Total surface area = _____ cm² x _____ = _____ cm²

Perimeter & Area of a Composite Shape

Area = L x W

Perimeter – Add all sides



Area

Shape A - ___ x ___ = ___

Shape B - ___ x ___ = ___

___+ ___ = ___

Perimeter

8 + ___ + 6 + ___ + ___ + 10 = ___

METRIC SYSTEM & MEASUREMENTS

Unit Conversion & Dimensional Analysis

Customary Units of Measurement - Chart

Length	Weight	Capacity	Time
12 in = 1 ft	16 oz = 1lb	128 fl oz = 1 gal	60 sec = 1 min
3 ft = 1 yrd	2000 lb = 1 ton	2 pt = 1 qt	60 min = 1 hr
5,280 ft = 1 mi		8 pt = 1 gl	24 hr = 1 day
1,760 yrd = 1 mi		4 qt = 1 gal	7 days = 1 wk
			52 wk = 1 yr
			12 mon = 1 yr
			365 days = 1 yr

a) 5 ft = _____ inches

b) 3 miles = _____ feet

c) 36 inches = _____ feet

d) 4 pounds (lbs.) = _____ ounces

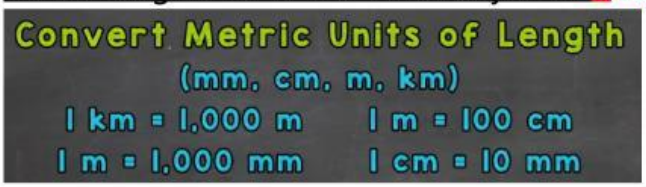
e) 6 tons = _____ pounds (lbs.)

f) 7 quarts (qts.) = ____ pints (pts)

g) 2 gallons = _____ quarts (qts)

h) 18 pints = _____ quarts (qts)

Converting Units in the Metric System **(Hint: Add commas to answers)**



532 cm = _____ mm

411 m = _____ mm

917 m = _____ mm

37 m = _____ cm

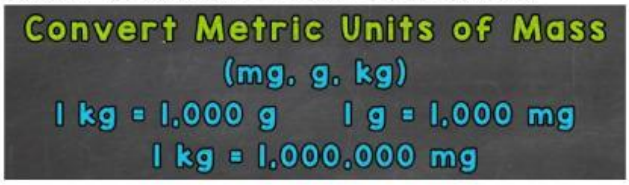
Converting Units of Time

Use these clues to help you convert between units of time. You can also use a calculator to help you with larger numbers.

60 seconds = 1 minute	60 minutes = 1 hour
24 hours = 1 day	7 days = 1 week
2 weeks = 1 fortnight	28 to 31 days = 1 month
12 months = 1 year	52 weeks = 1 year
365 days = 1 year	366 days = 1 leap year
10 years = 1 decade	100 years = 1 century
1000 years = 1 millennium	

120 minutes = _____ hours
2 decades = _____ years
2 years = _____ weeks
48 hours = _____ days
90 seconds = _____ minutes
3 weeks = _____ days
2 fortnights = _____ weeks
80 years = _____ decades
4 centuries = _____ years

Mass: Formulas & Unit Conversion



1. 3 kg = _____ g
2. 8 kg = _____ g
3. 5,000 g = _____ kg

Estimated & Precise Measurements

Note: 1 centimeter (cm) = 10 millimeters (mm)

Convert the given measures to new units.

1. 70 cm = _____ mm
2. 30 cm = _____ mm
3. 90 mm = _____ cm
4. 20 cm = _____ mm
5. 80 mm = _____ cm
6. 40 mm = _____ cm

Elapsed Time

Find the start time, end time and elapsed time for each problem.

Start time	End time	Elapsed time
		
		

Measuring Units of Temperature

Write the temperature indicated on each thermometer.