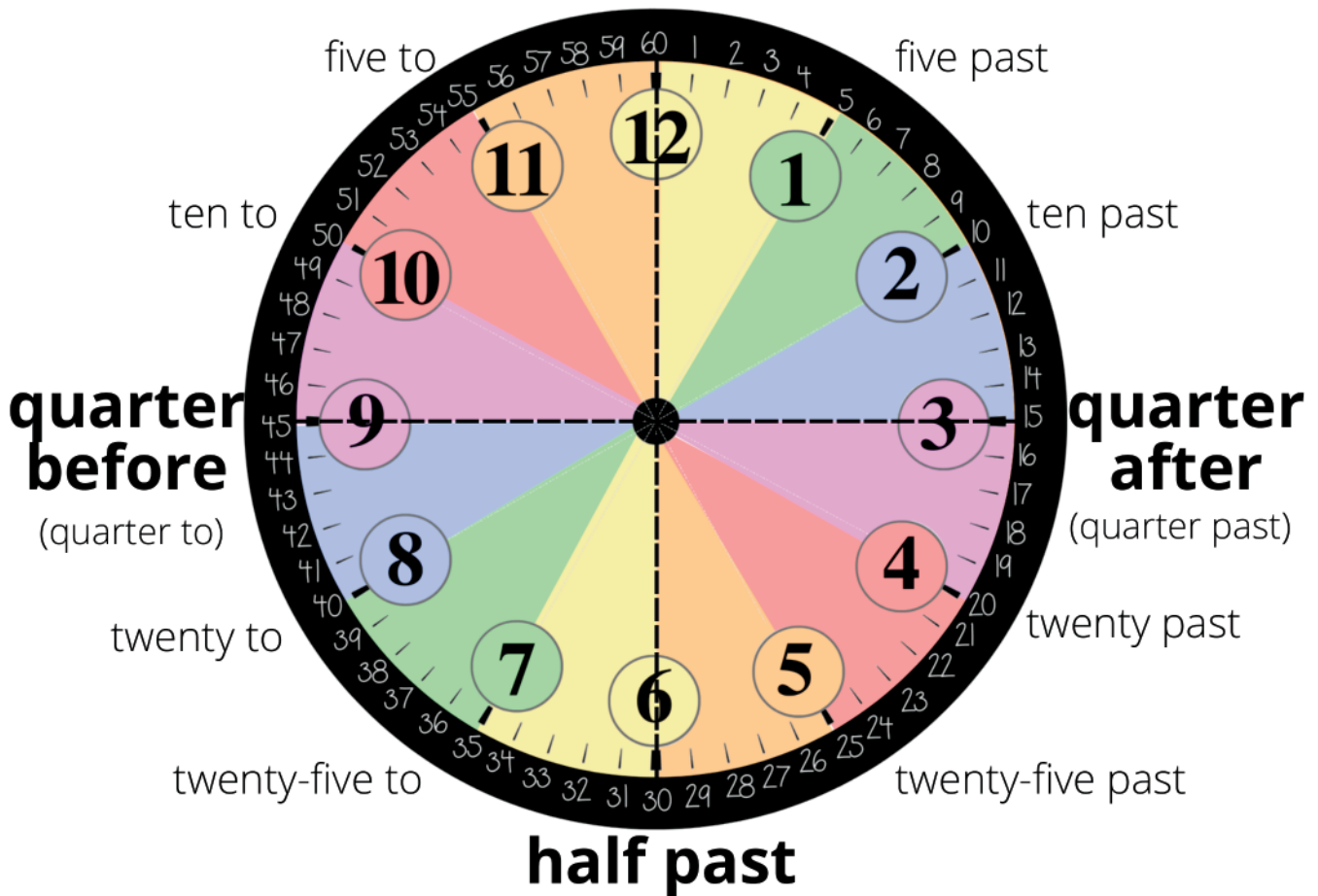# Addition & Subtraction Terminology
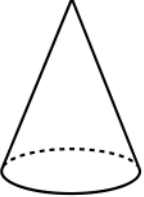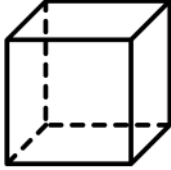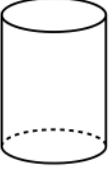
Addition

plus

equal

$$3 + 7 = 10$$

addend

sum

Subtraction

minus

equal

$$10 - 3 = 7$$

MINUend
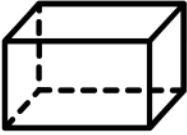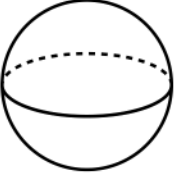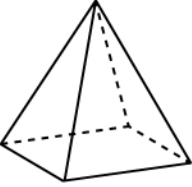
Subtrahend

difference

Clock Nicknames

o'clock

five to

five past

ten to

ten past

quarter
before

(quarter to)

quarter
after

(quarter past)

twenty to

twenty past

twenty-five to

twenty-five past

half past
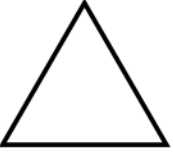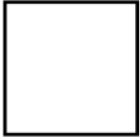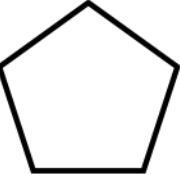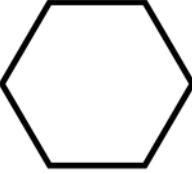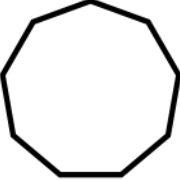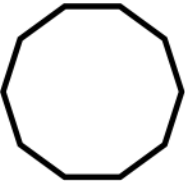
3D Shapes

cone Tapers smoothly from a flat base to a point called the apex or vertex.		**cube** Has six square faces, facets or sides, with three faces meeting at each vertex.	
cylinder Has straight parallel sides and a circular or oval cross section.		**cuboid** Has six rectangular faces at right angles to each other.	
sphere Every point on the surface is equidistant from the center.		**pyramid** Formed by connecting a polygonal base and a point, called the apex.	

POLYGONS
(Greek for many angles)

These are all REGULAR polygons with sides the same length and angles the same measure.
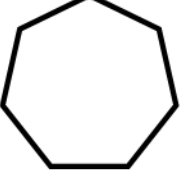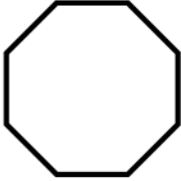
TRIgon 3 angles and sides	**TETRAgon** (quadrilateral) 4 angles and sides
PENTAgon 5 angles and sides	**HEXAgon** 6 angles and sides
HEPTAgon 7 angles and sides	**OCTAgon** 8 angles and sides
NONAgon 9 angles and sides	**DECAgon** 10 angles and sides

Identifying Quadrilaterals

How many PAIRS of parallel lines does it have?

0 pairs → Just a quadrilateral

1 pair → Trapezoid

2 pairs → Are the adjacent sides perpendicular?

- **no** → Are all sides congruent?
  - **no** → Parallelogram
  - **yes** → Rhombus
- **yes** → Are all sides congruent?
  - **no** → Rectangle
  - **yes** → Square
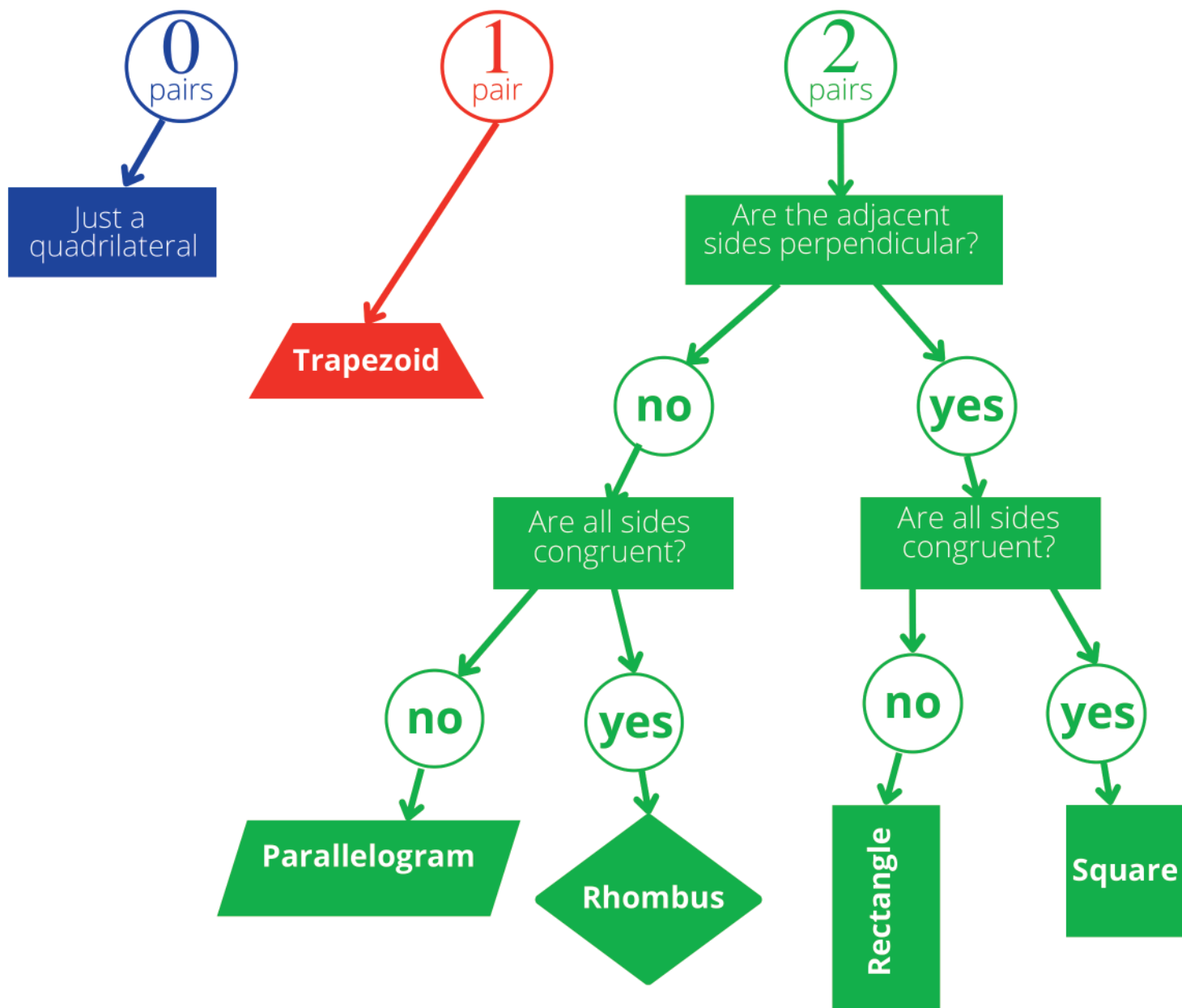
	Shape	Description
	Square	Has two pairs of parallel sides, right angles and congruent sides. Also a rectangle and a parallelogram.
	Rectangle	Has two pairs parallel sides, and four right angles. Also a parallelogram.
	Rhombus	A parallelogram with four congruent sides, but it does not have to have 4 right angles.
	Parallelogram	Has 2 pairs of parallel sides, opposite each other.
	Trapezoid	Has one pair of parallel sides.

	Square	Rectangle	Rhombus	Parallelogram	Trapezoid
All sides are congruent	X		X		
Opposite sides are congruent	X	X	X	X	
Opposite sides are parallel	X	X	X	X	
Opposite angles are congruent	X	X	X	X	
All angles are right angles	X	X			

Venn Diagram

All 4-sided polygons are quadrilaterals

parallelograms

rectangles

squares

rhombus

trapezoid
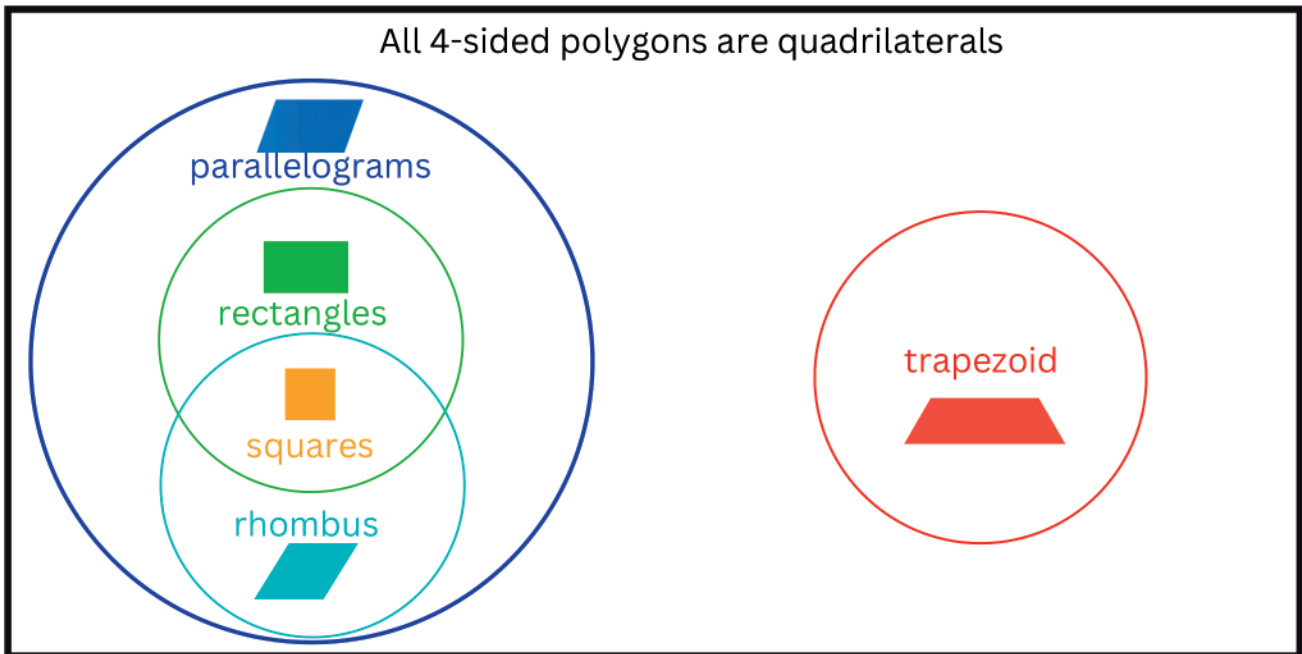
Parts of a Shape

vertex: point where two or more curves, lines, or edges meet.
apex: the highest vertex
edge: line segment joining two vertices (plural of vertex)

edge

vertices

edge

face

vertex

apex

edge

vertex

vertex

edge
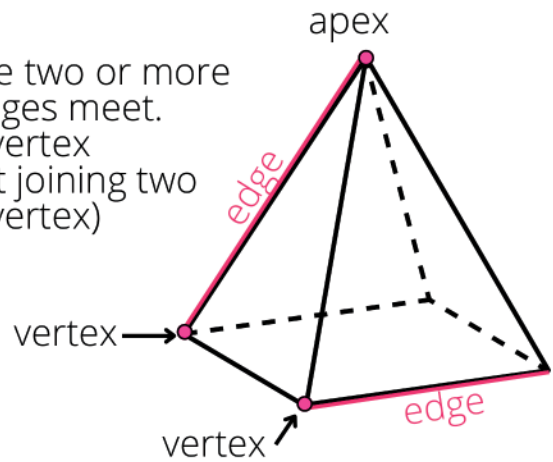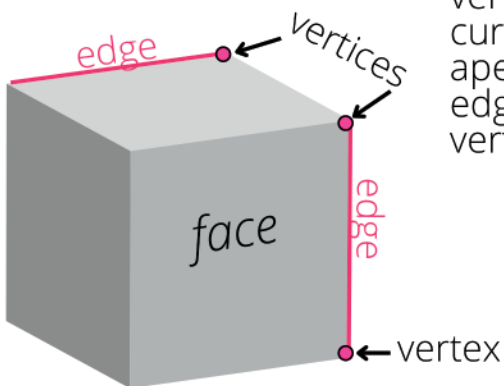
parallel

perpendicular
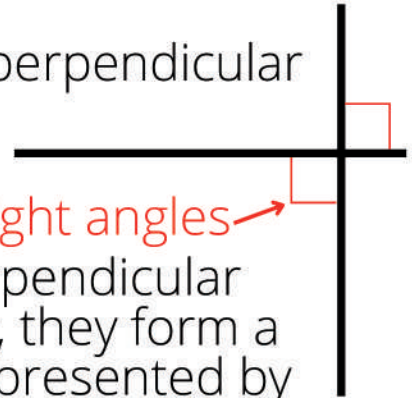
right angles

When two perpendicular lines intersect, they form a right angle, represented by the symbol ∟.

horizontal	vertical	oblique

Left

right

MONEY

	Quarters 25¢		Nickels 5¢
	Dime 10¢		Pennies 1¢
	Dollar 100¢	4 Quarters = 100¢	

Fractions

Fractions are pieces of things.

1

numerator: the top number in a fraction, it tells you how many pieces you have.

—

4

denominator: the bottom number in a fraction, it tells you HOW MANY pieces you cut your item into, or the SIZE of your piece, because the size of your piece is determined by the number of pieces you cut your item into.
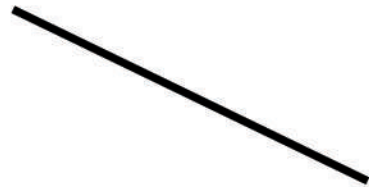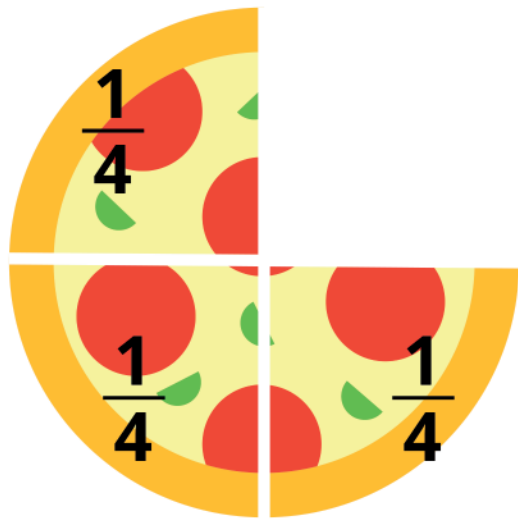
EXAMPLE:

Numerator
You have 3 pieces ➡️

$\dfrac{3}{4}$

Denominator
The pizza was cut into 4 pieces, so each piece is $\dfrac{1}{4}$ of the pizza. ➡️
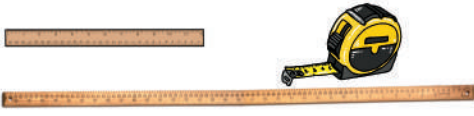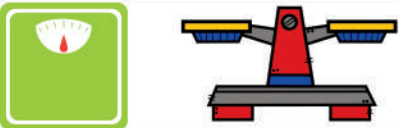
Graphing Steps:

1. Ask your question
2. Collect information about your question
3. Study the information (tally marks or count)
4. Graph the information
5. Analyze the information

Word Problem Steps:

1. Read the problem carefully.
2. What is the question? Circle the question.
3. Underline the keywords and all important information.
4. Cross out any information that doesn't matter.
5. Draw a picture and write a number sentence. Solve the problem and show your work.
6. Check. Re-read your problem and check your work.

Measurement

What are we measuring?	Tools	Units
Capacity		cup, pint, quart, gallon
Temperature		°F, °C
Length		inches, centimeters
Weight		pounds

Math Vocabulary

Algorithm: a process or set of rules to be followed when solving a problem, sort of like a recipe.

Horizontal: anything parallel to the horizon.

Vertical: perpendicular to horizontal.

Oblique: not parallel, not vertical, but in between them both.

Perpendicular: perpendicular lines intersect at a right angle.

Right Angle: When two straight lines intersect each other at 90˚ or are perpendicular to each other at the intersection, they form a right angle.

Congruence: items that are the same shape and size.

Symmetry: a line of symmetry cuts an object in half so that both halves perfectly mirror each other.

Fraction: a piece of something.

Numerator: the top number in a fraction, it tells you how many pieces you have.

Denominator: the bottom number in a fraction, it tells you how many pieces the item is divided into.

Sum: the answer to an addition problem.

Difference: the answer to a subtraction problem.

Addends: the numbers that are added together.

Polygon: In Greek, poly means many and gon means angles.

Regular Polygon: has sides that are all the same length and angles that are the same measure.

Capacity: capacity is defined as the maximum quantity a container can hold when full.

Volume: the amount of the total space that is taken up by an object.