Grade 4 Mathematics
Vocabulary Word Wall Cards

Mathematics vocabulary word wall cards provide a display of mathematics content words and associated visual cues to assist in vocabulary development. The cards should be used as an instructional tool for teachers and then as a reference for all students. **The cards are designed for print use only.**

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Place Value Position

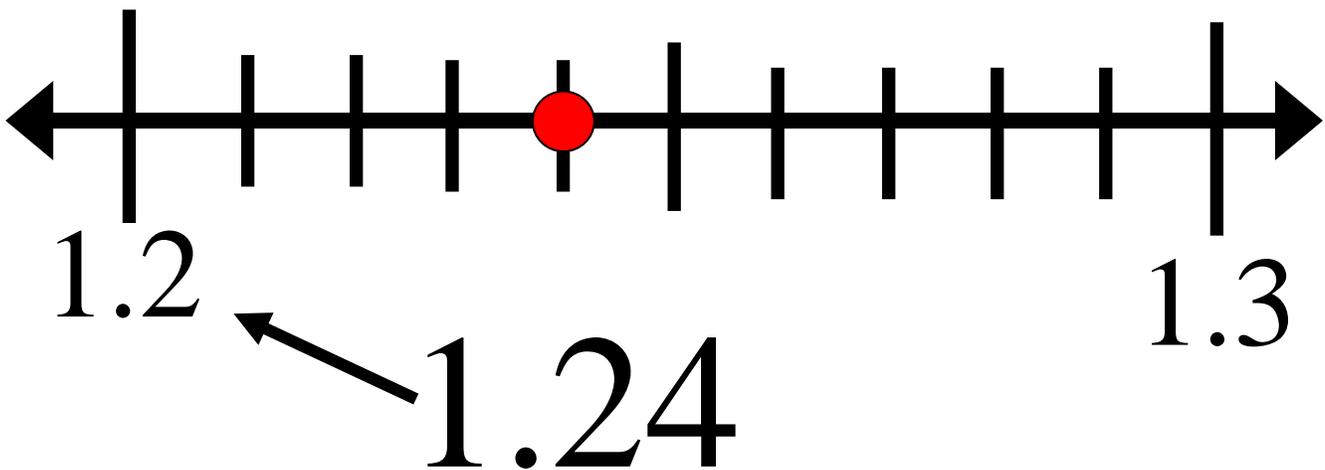| Hundred Millions	Ten Millions	One Millions		Hundred Thousands	Ten Thousands	One Thousands		Hundreds	Tens	Ones
7	9	1	,	2	3	5	,	4	8	6

Decimal Place Value Position

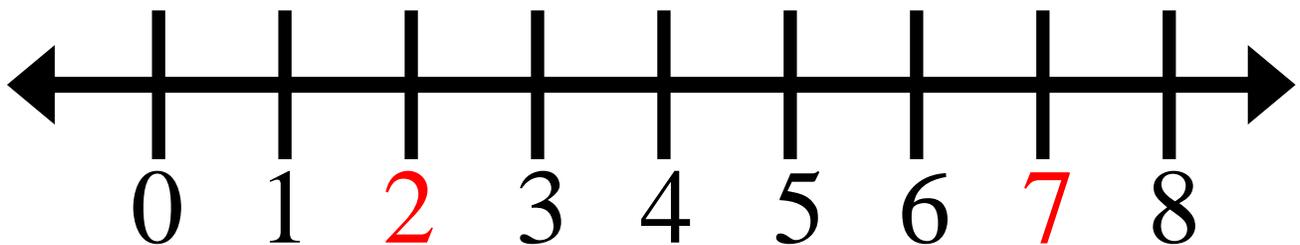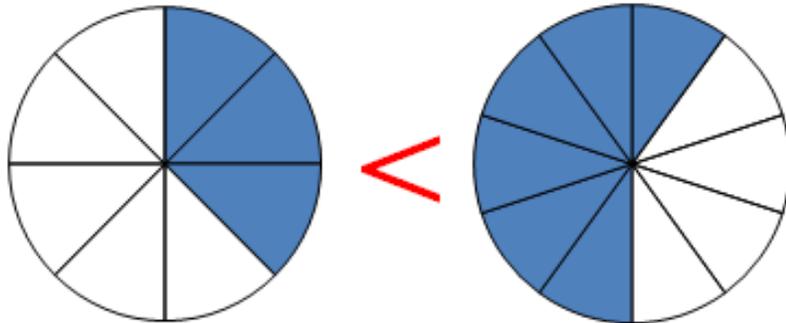| Ones		Tenths	Hundredths	Thousandths
3	.	7	2	1

decimal point

Round

1.2   1.3

1.24

Round 1.24 to the nearest tenth.

Less than

<

2 < 7

$$\frac{3}{8} < \frac{6}{10}$$

Greater than

>

0 1 2 3 4 5 6 7 8

8 > 4

$$\frac{5}{8} > \frac{2}{5}$$
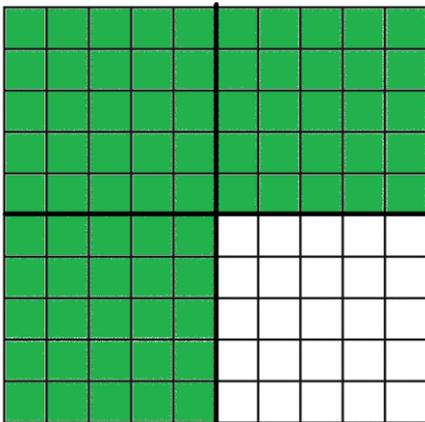
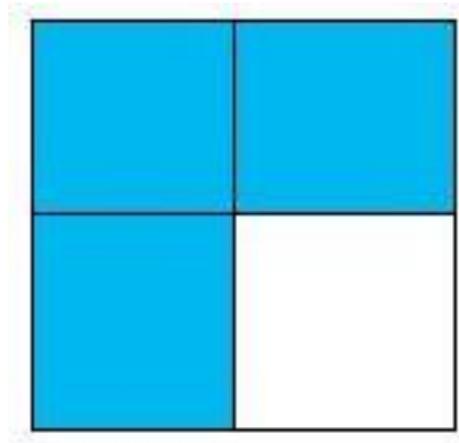# Equal to

$$=$$

0 1 2 3 4 5 6 7 8
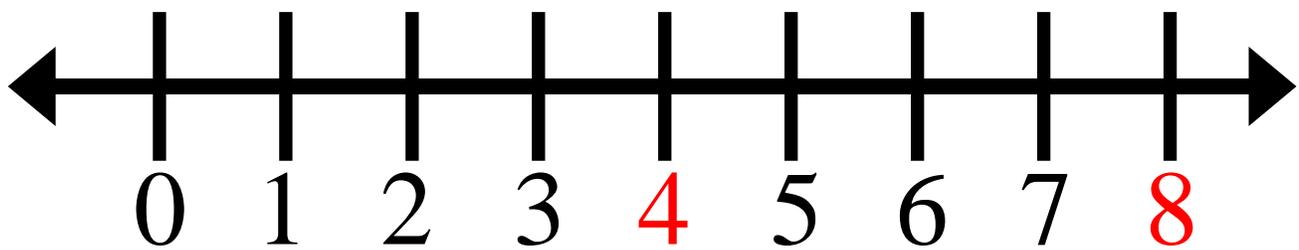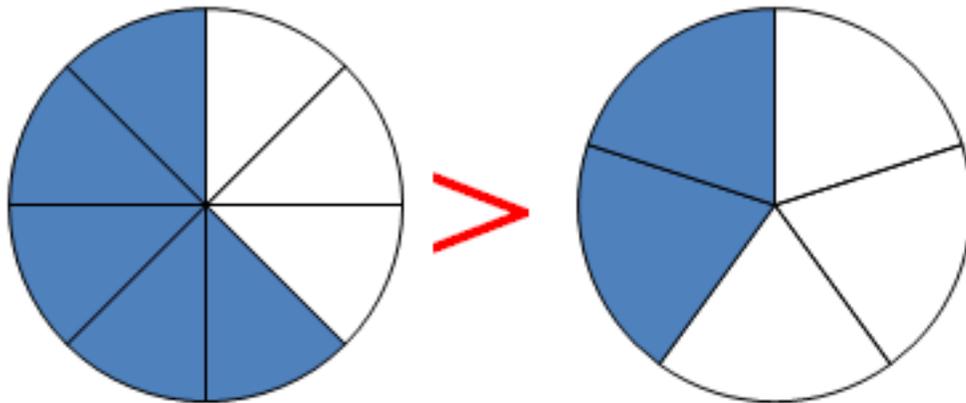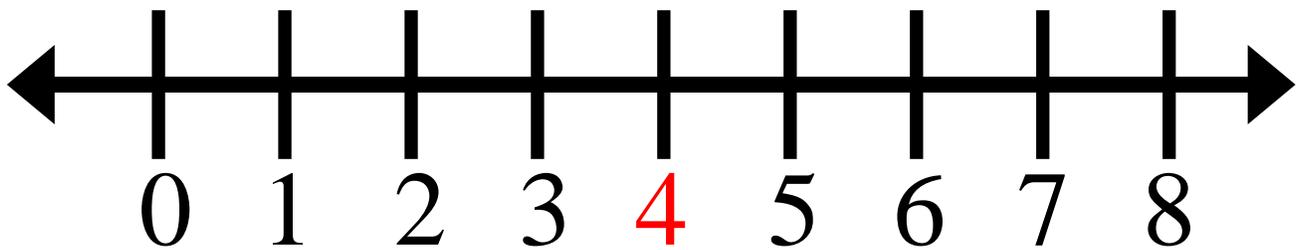
$$4 = 4$$
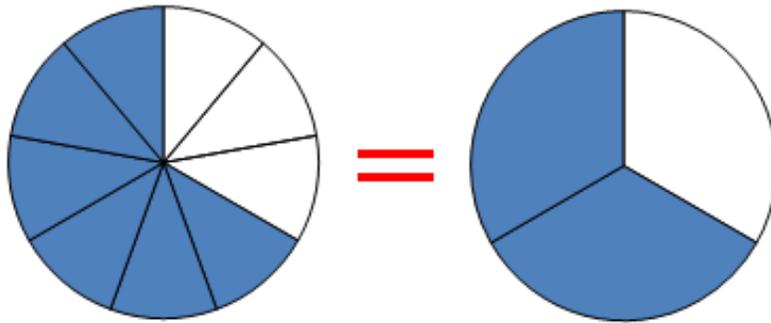
$$\frac{6}{9} = \frac{2}{3}$$

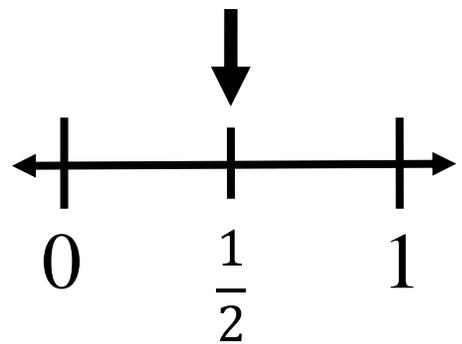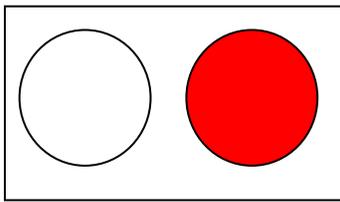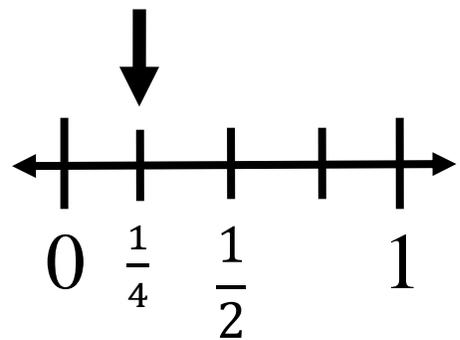# Equivalent

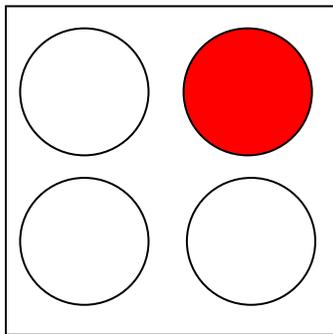$$\frac{75}{100} = \frac{3}{4}$$

$$0.75 = \frac{3}{4}$$

Fraction:
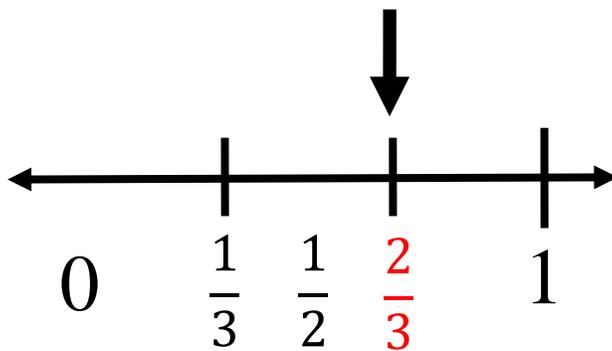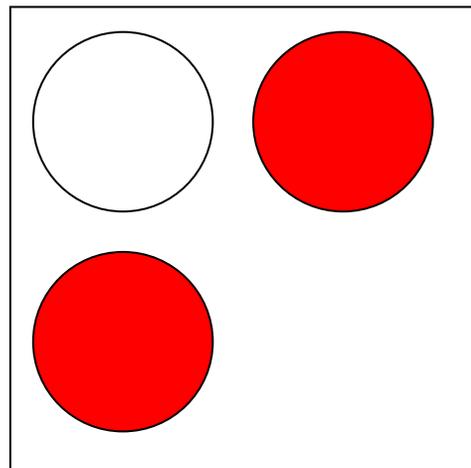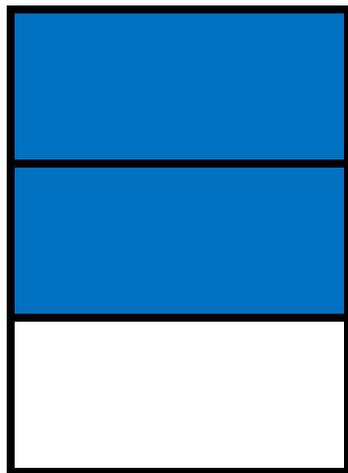## Models for one-half and one-fourth

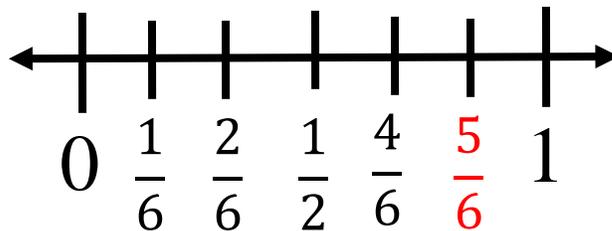$\frac{1}{2}$

$\frac{1}{4}$

Fraction:
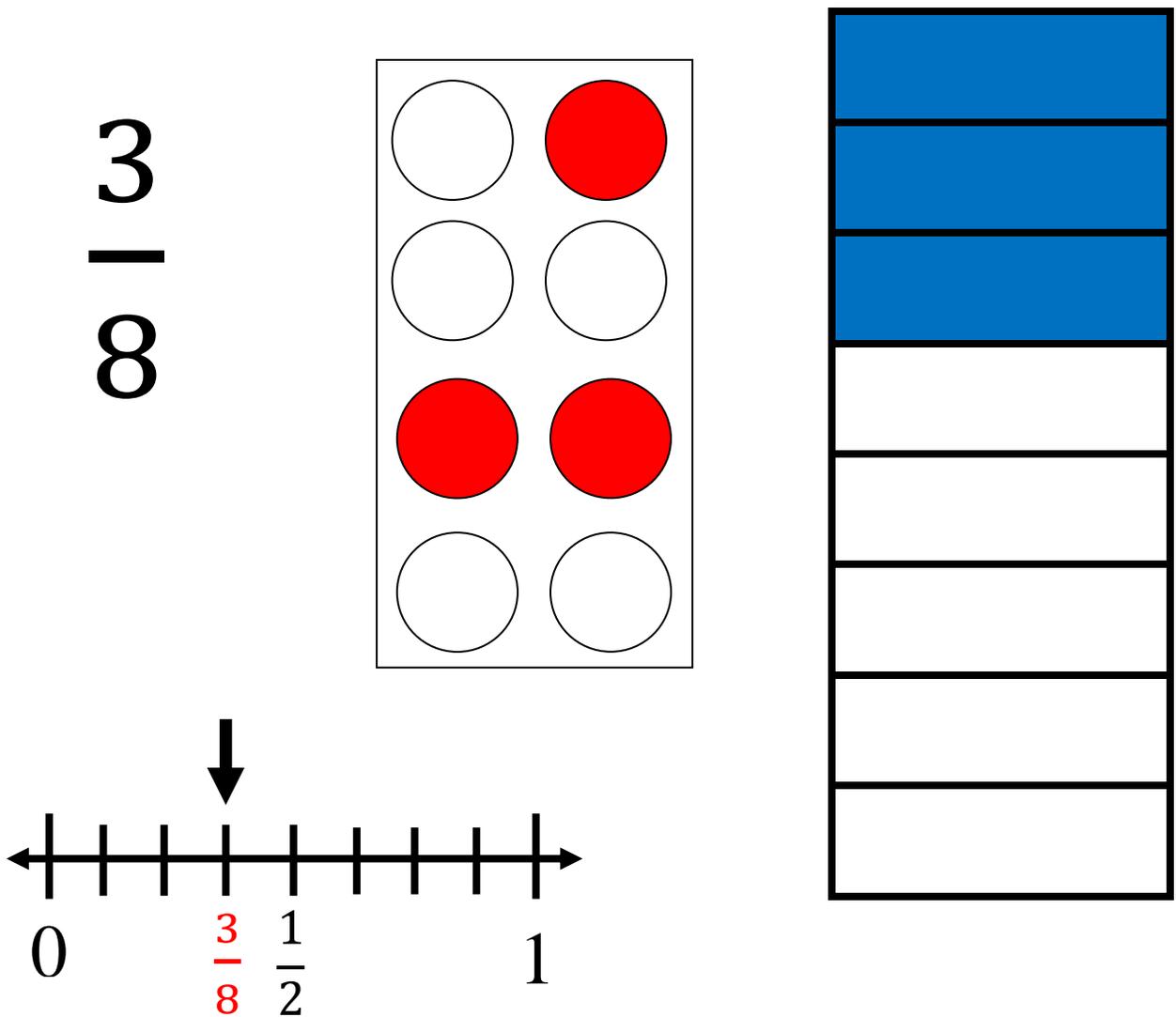## Models for two-thirds

$$\frac{2}{3}$$

Fraction:
Models for five-sixths

$$\frac{5}{6}$$

0 $\frac{1}{6}$ $\frac{2}{6}$ $\frac{1}{2}$ $\frac{4}{6}$ $\frac{5}{6}$ 1
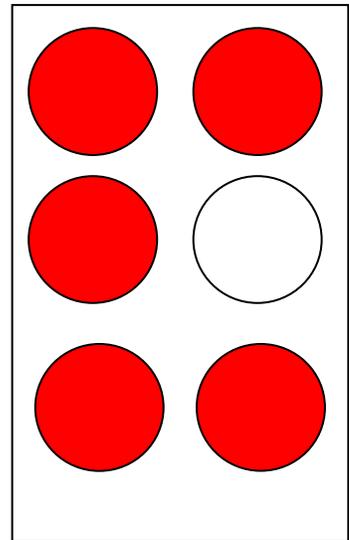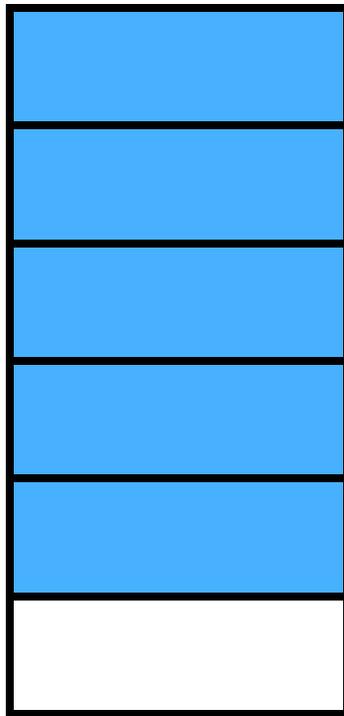
Fraction:
Models for three-eighths

$$\frac{3}{8}$$

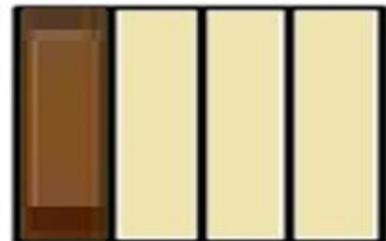0 $\frac{3}{8}$ $\frac{1}{2}$ 1

Numerator/ Denominator

numerator

(number of equal parts being considered)

$$\frac{2}{3}$$

denominator

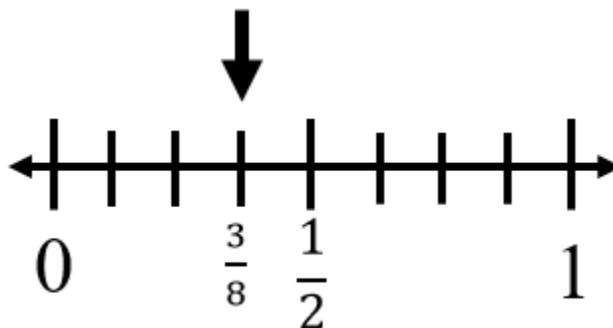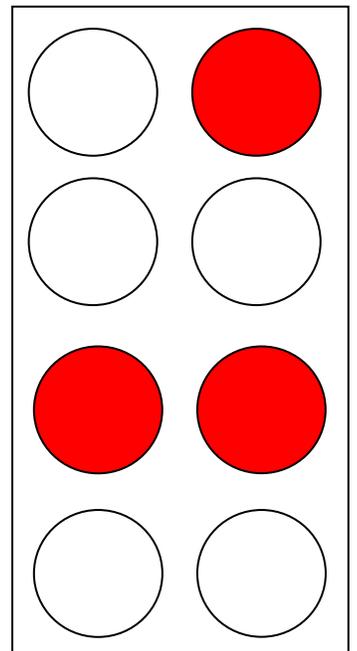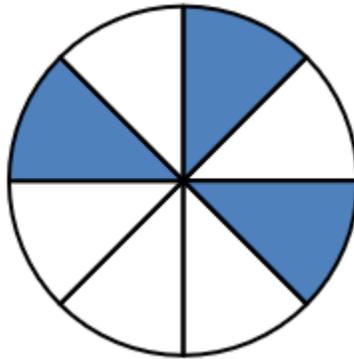(number of equal parts in the whole)

The candy bar was divided into 4 equal parts. Three friends ate 3 pieces of the candy bar, so $\frac{3}{4}$ of the candy bar has been eaten.

Proper Fraction:

Fraction less than one
(numerator is less than the denominator)
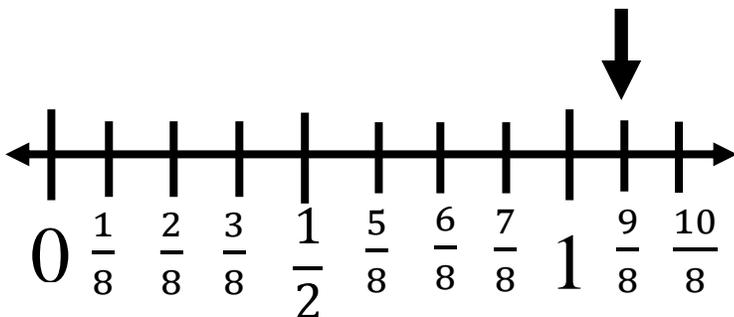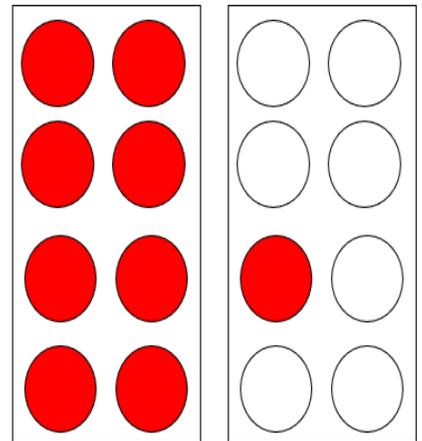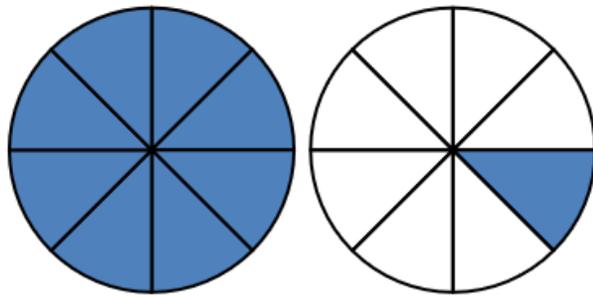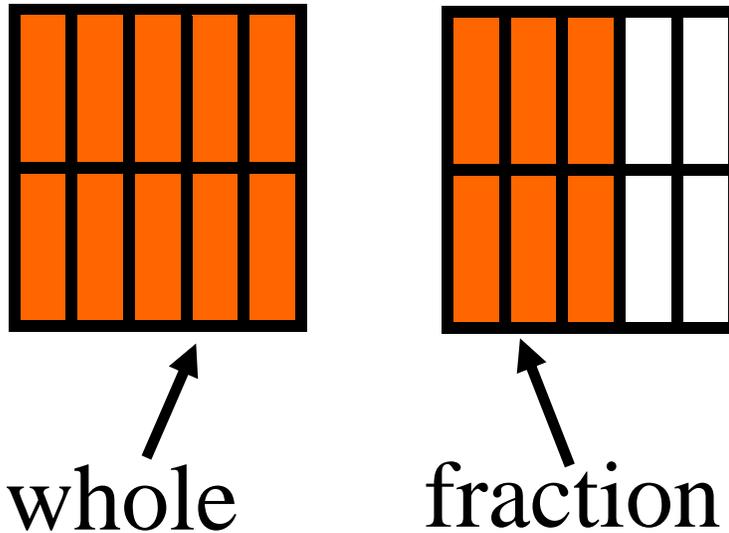
$$\frac{3}{8}$$

Improper Fraction:

Fraction greater than or equal to one

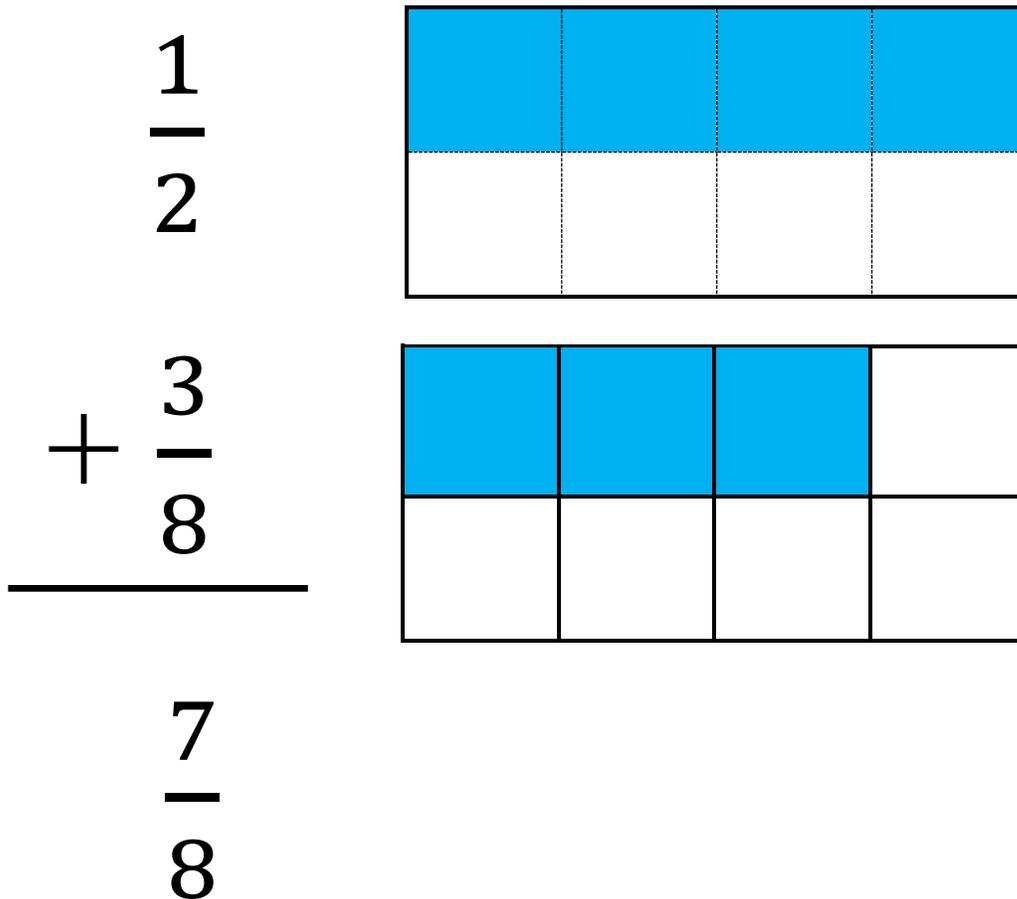(numerator is equal to or greater than the denominator)
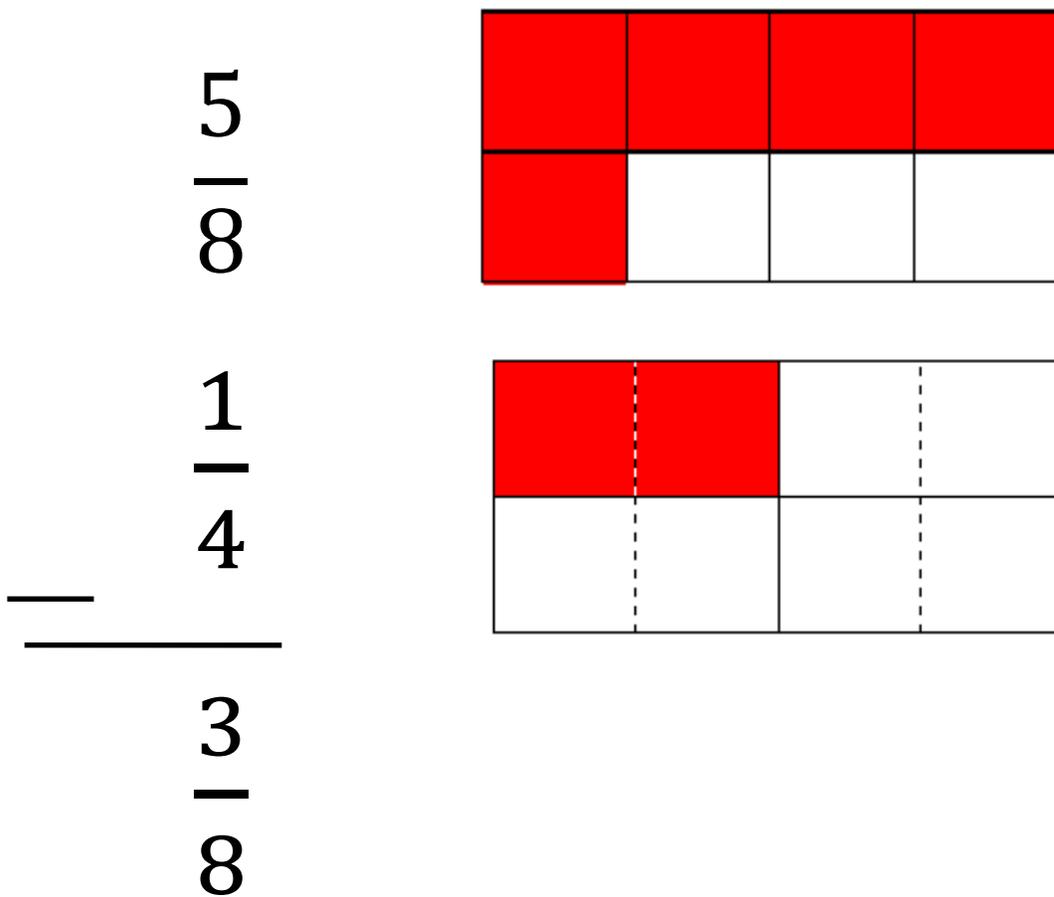
$$\frac{9}{8}$$

Mixed Number

whole

fraction

$$1\frac{6}{10}$$

Fraction: Addition

$$\frac{1}{2}$$

$$+ \frac{3}{8}$$

$$\frac{7}{8}$$

Fraction: Subtraction

$$\frac{5}{8}$$

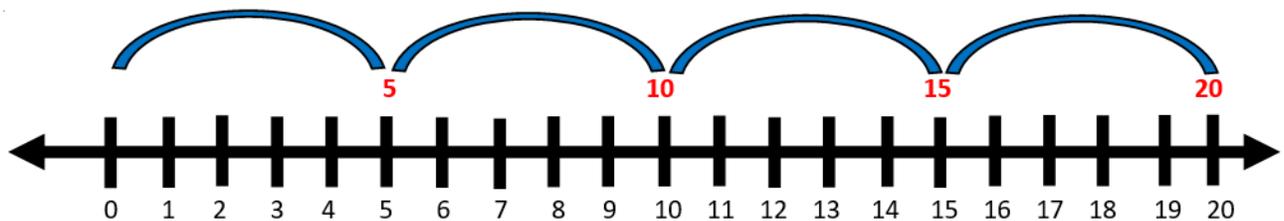$$-\frac{1}{4}$$

$$\frac{3}{8}$$

Multiple

Multiples of 5

$1 \times 5 = 5$

$2 \times 5 = 10$

$3 \times 5 = 15$

$4 \times 5 = 20$

5, 10, 15, 20, …

Least Common Multiple

Multiples of 12	Multiples of 18
1 x 12 = 12	1 x 18 = 18
2 x 12 = 24	2 x 18 = (36)
3 x 12 = (36)	3 x 18 = 54
4 x 12 = 48	

LCM is 36.

Factor

Factors of 12

1, 2, 3, 4, 6, 12

1 x 12

2 x 6

3 x 4

Greatest Common Factor

Factors of 12	Factors of 18
1 x 12 = 12	1 x 18 = 18
2 x 6 = 12	2 x 9 = 18
3 x 4 = 12	3 x 6 = 18
1, 2, 3, 4, 6, 12	1, 2, 3, 6, 9, 18

GCF is 6.

Factors of 12
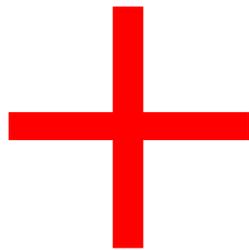

Factors of 18
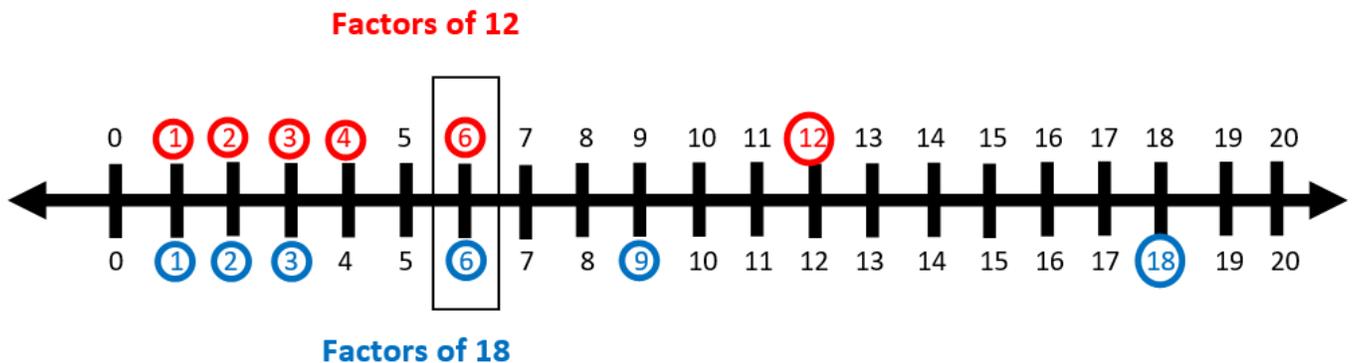
Addition

$$4.65 + 1.74 = 6.39$$
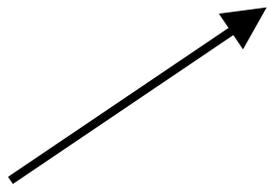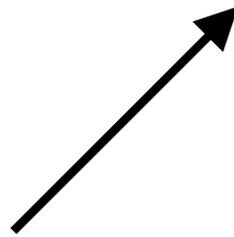
sum

+

plus

Subtraction

$$4.25 - 1.64 = 2.61$$

difference

▬▬▬

minus

Multiply:
Product

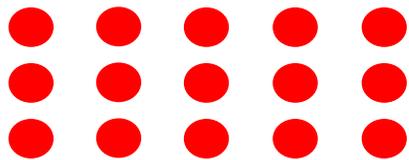$$32 \text{ x } 48 = 1{,}536$$

product
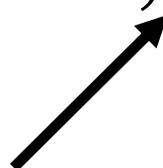
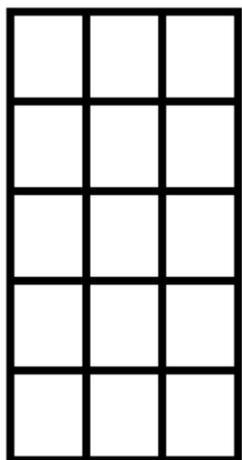**X**

Divide:
Quotient

$$7{\overline{\smash{)}280}}^{\displaystyle 40}$$

$$\frac{280}{7} = 40$$

$$280 \div 7 = 40$$

Multiplication:
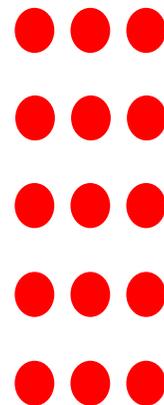## Array Model
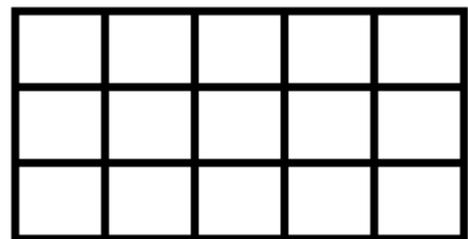**(an arrangement of objects in rows and columns)**
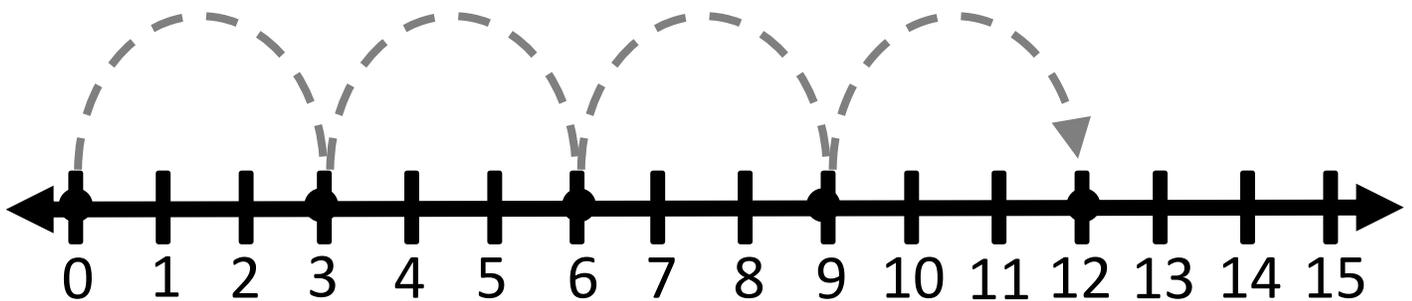
5 x 3

3 x 5

3 rows of 5

5 rows of 3

Multiplication:
Number Line Model

$$4 \times 3$$
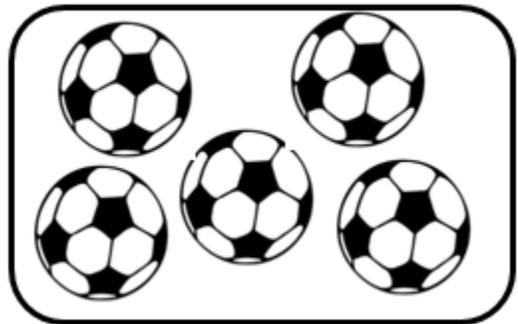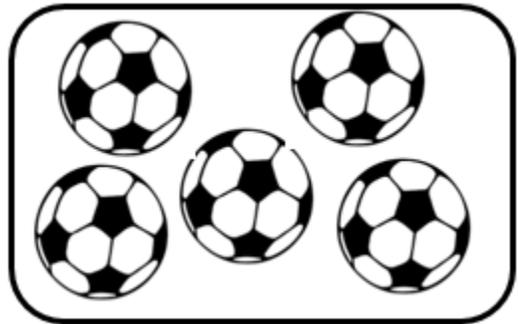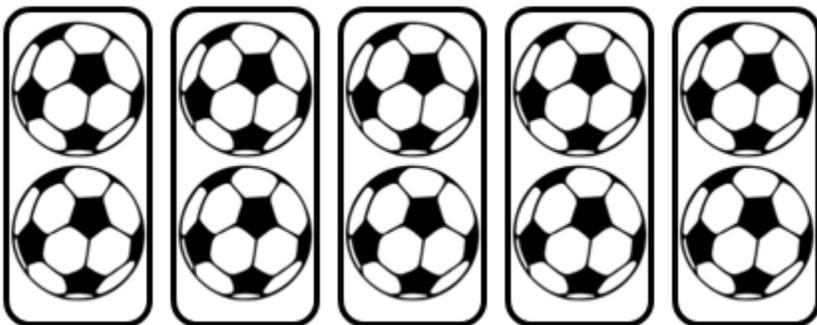

$$4 \times 3 = 12$$

Multiplication:
Set Model

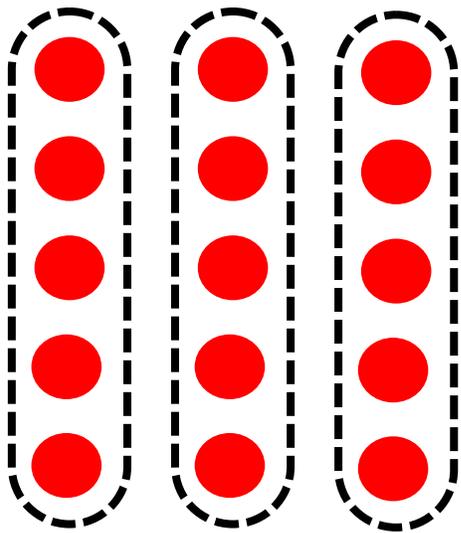2 x 5

2 groups of 5
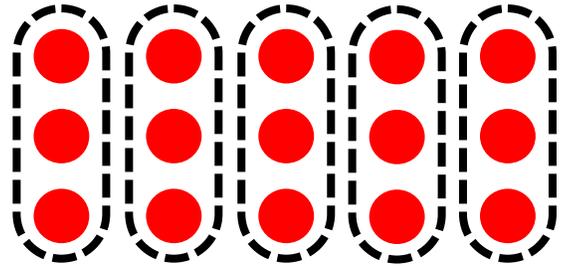soccer balls
in each group

5 x 2

5 groups of 2
soccer balls
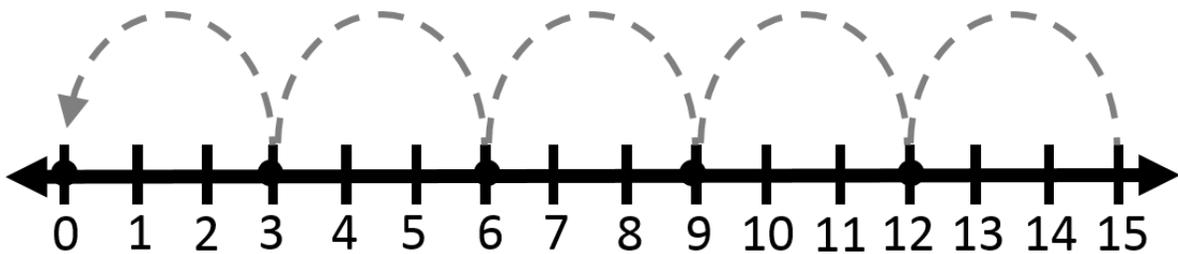in each group

Division:
Array Model

15 candies – if each friend is given 3, there is enough to share with 5 friends

15 candies to be shared among 3 friends means each friend will receive 5 candies

Division:
Number Line

$$15 \div 3 = 5$$

The race is 15 miles long. If each team member will run 3 miles, 5 team members will be needed.
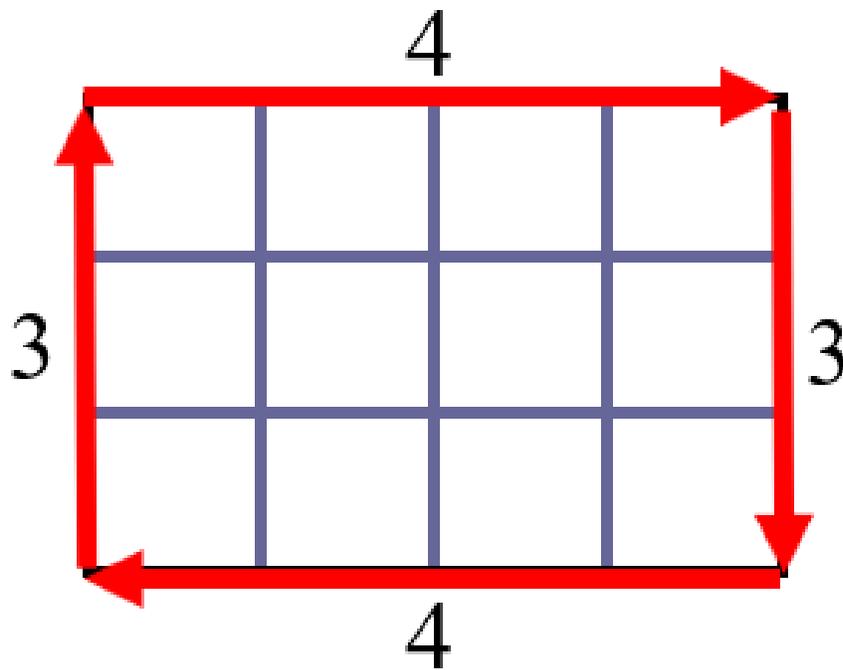
Area:
Square Units

1	2	3	4
5	6	7	8
9	10	11	12

length x width
3 x 4 = 12
12 square units

Perimeter:
Units

$$3 + 4 + 3 + 4$$
$$14 \text{ units}$$

Balance Scale: Weight/Mass
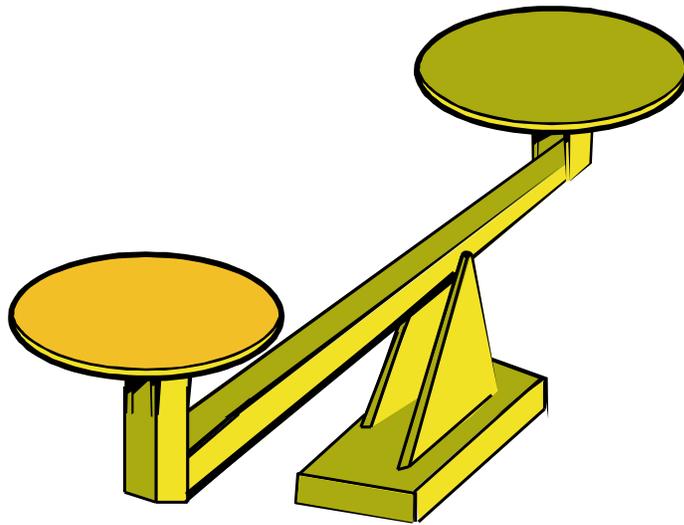
weight/mass

Scale:
Weight/Mass

weight/mass

Ounce (oz.):
Pounds

16 ounces = 1 pound

Pound (lb):
Ounces

1 pound = 16 ounces

Gram (g):
Kilograms
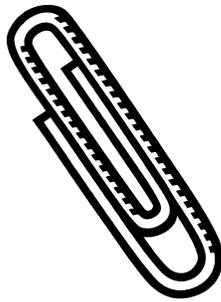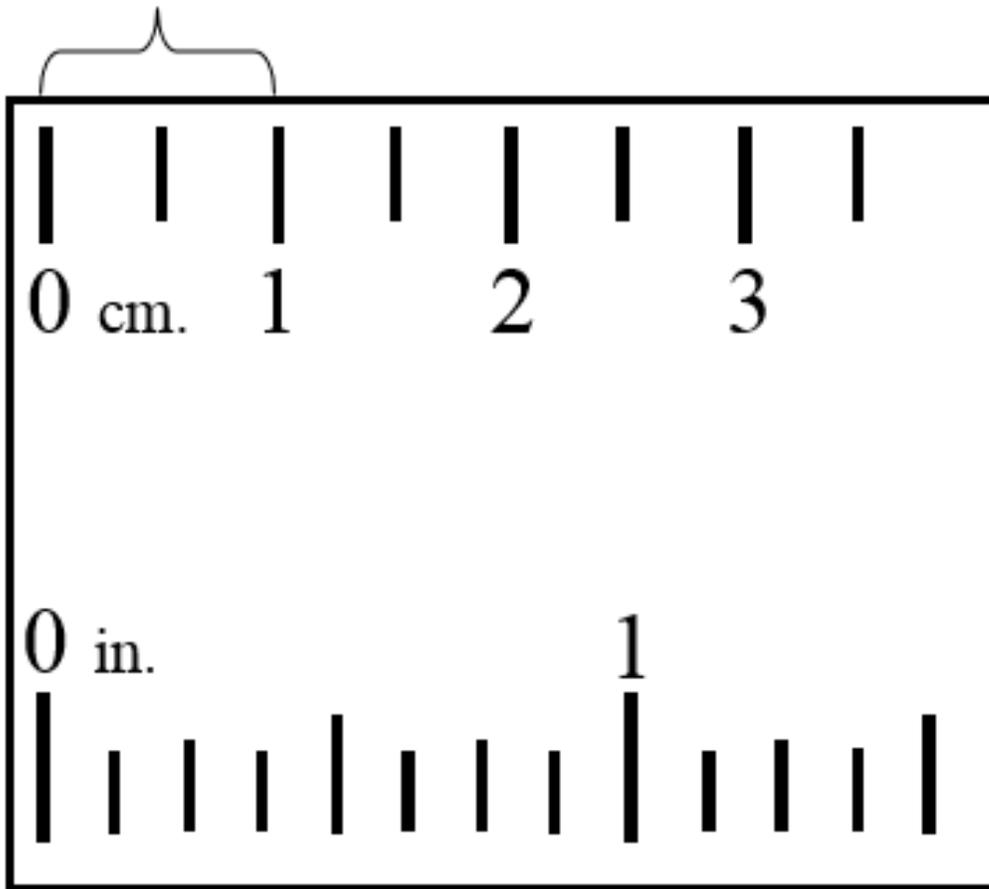

1,000 grams = 1 kilogram

Kilogram (kg):
Grams

1 kilogram = 1,000 grams
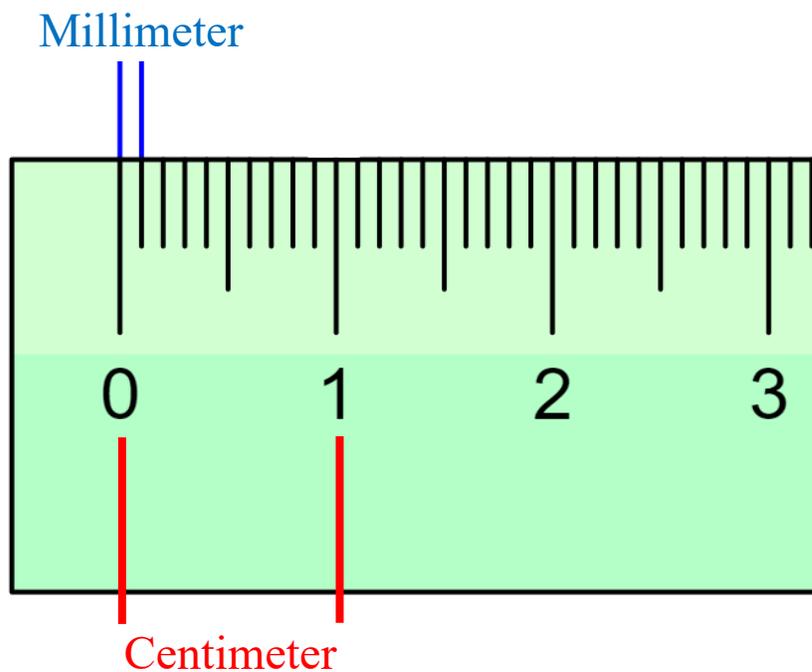
Ruler:

Centimeter and Inch

one centimeter

0 cm.   1   2   3

0 in.   1

one inch

Millimeter (mm):
Centimeter

Millimeter

Centimeter

0   1   2   3

10 millimeters = 1 centimeter

Inches, Feet, and Yards

1 foot = 12 inches
1 yard = 36 inches
1 yard = 3 feet

Mile (mi):
Yards

1 mile =1,760 yards

Cup:
Ounces

1 cup = 8 ounces

Pint:
Cups and Ounces
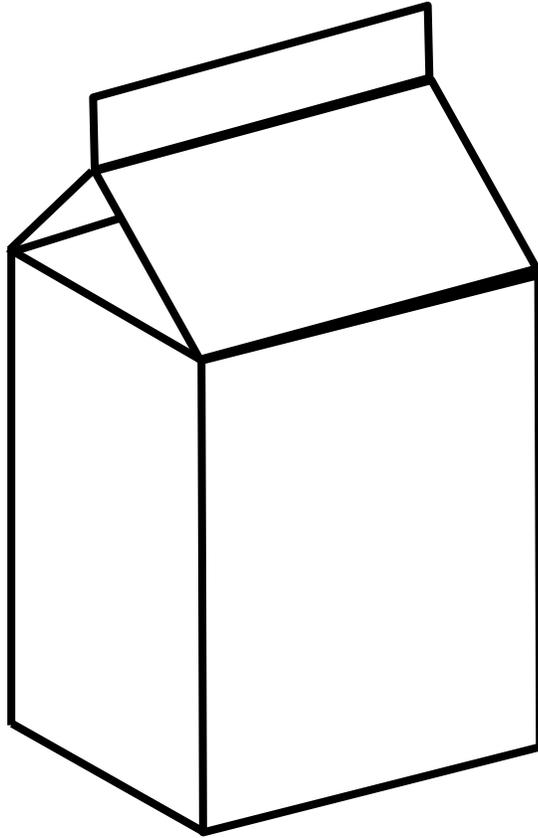
1 pint = 2 cups
1 pint = 16 ounces

Quart:
Pints, Cups, and Ounces

1 quart = 2 pints

1 quart = 4 cups

1 quart = 32 ounces
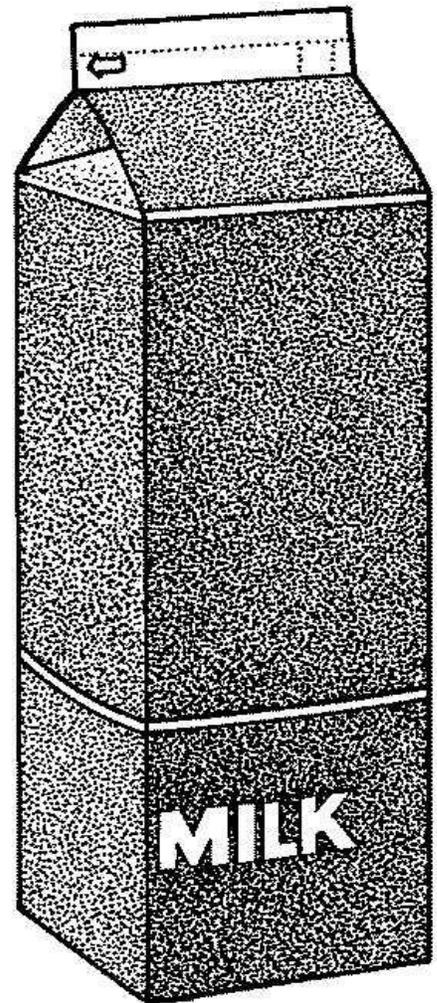
Gallon:
Ounces

1 gallon = 128 ounces
1 gallon = 16 cups
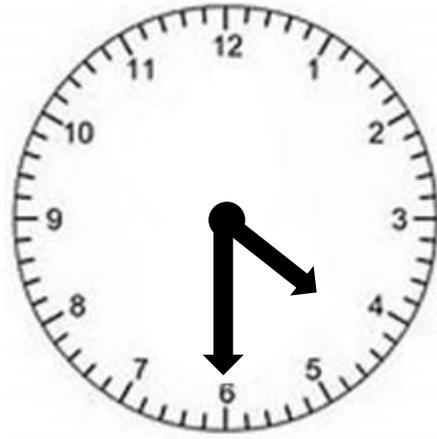1 gallon = 8 pints
1 gallon = 4 quarts

Liter
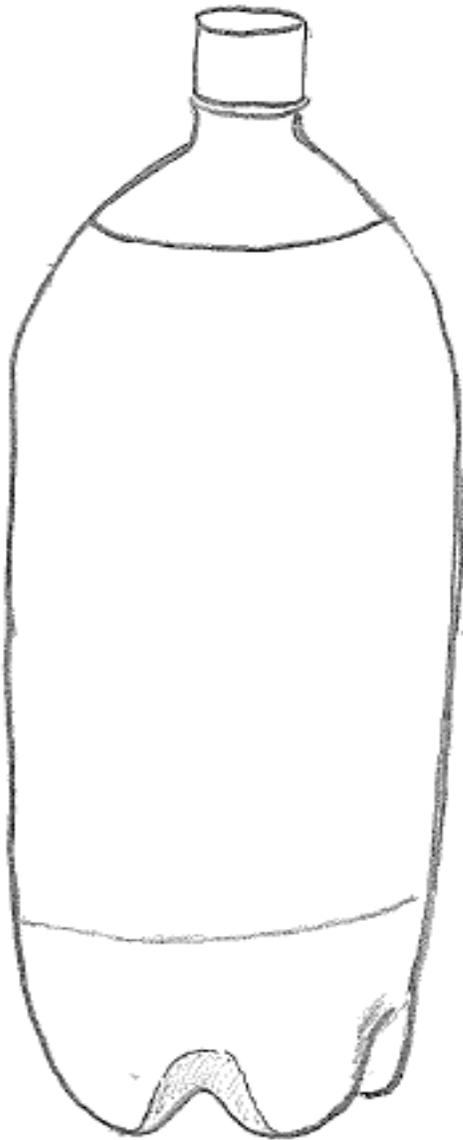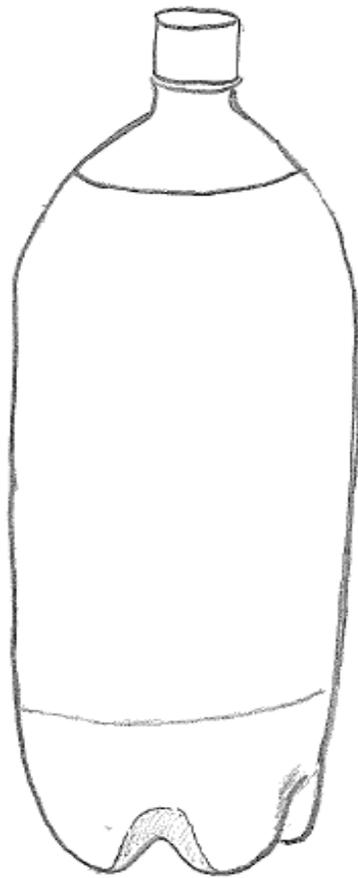
2 liter   1 liter

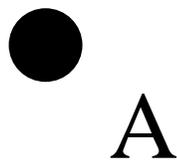# Elapsed Time

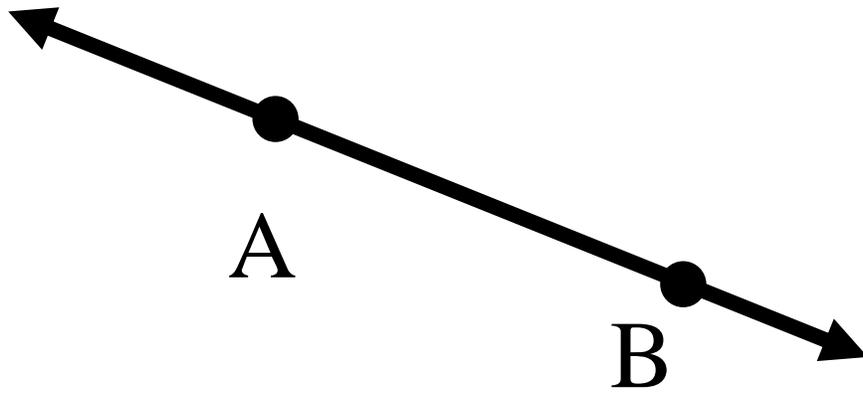## amount of time that has passed between two given times

START

STOP

Start		Stop	
12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
A.M.													P.M.											

Point

●

A
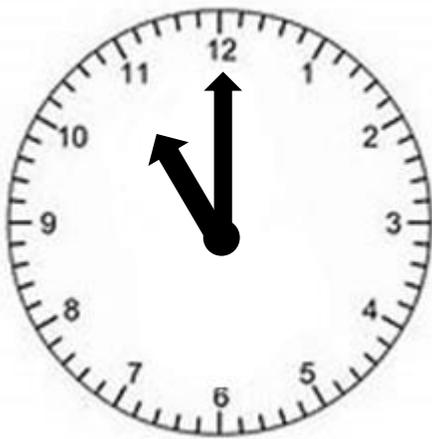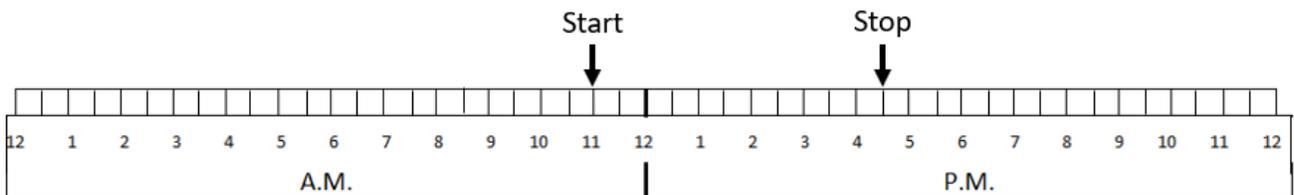
point A

Line

line AB

$$\overleftrightarrow{AB}$$

Ray:
Endpoint

endpoint → R

S
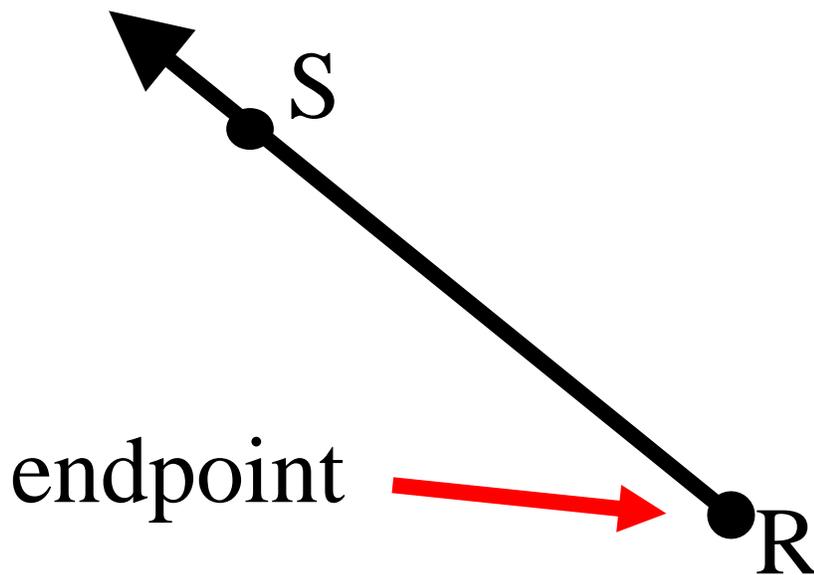
ray RS

$$\overrightarrow{RS}$$

Line Segment:
Endpoint

C

D

endpoints
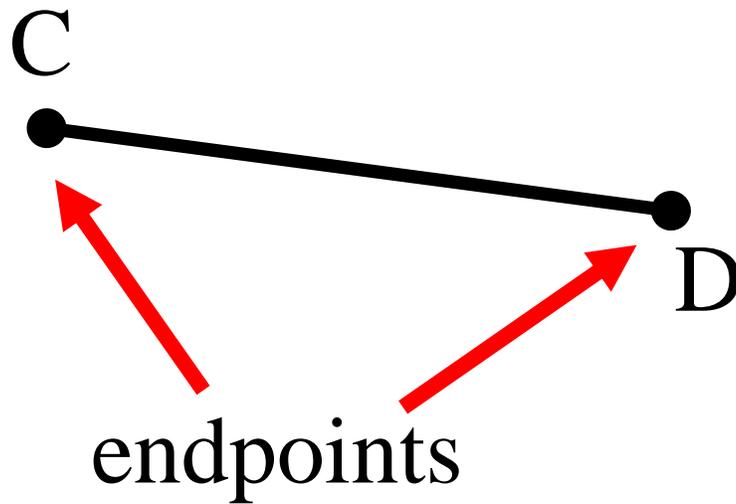
line segment CD

$$\overline{CD}$$
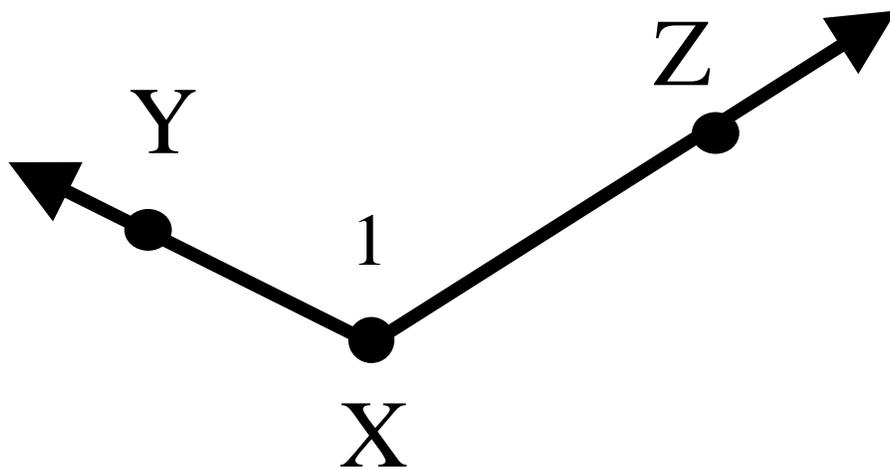
Angle

angle *YXZ*, angle *X*, or angle 1
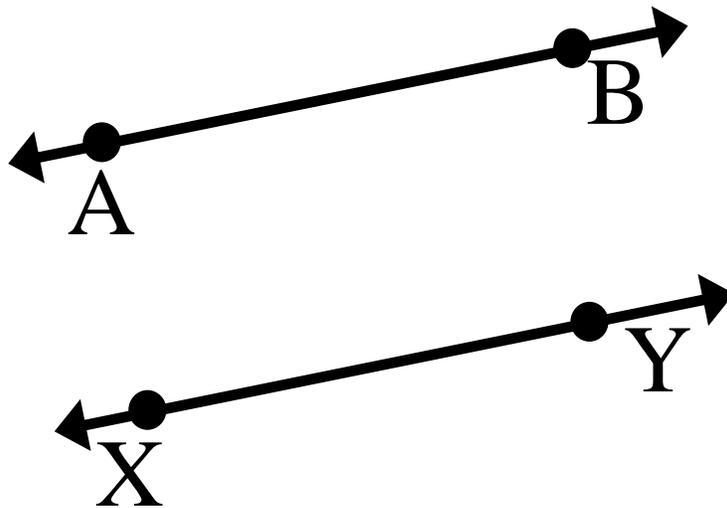
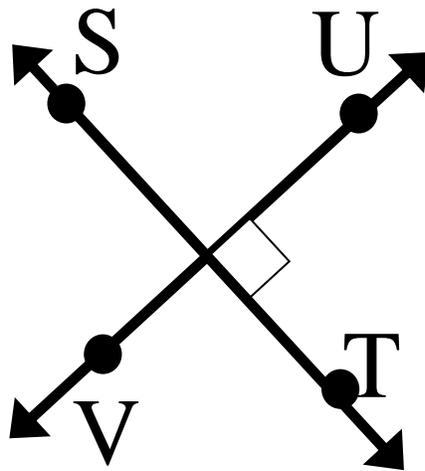∠YXZ, ∠X, or ∠1

Vertex
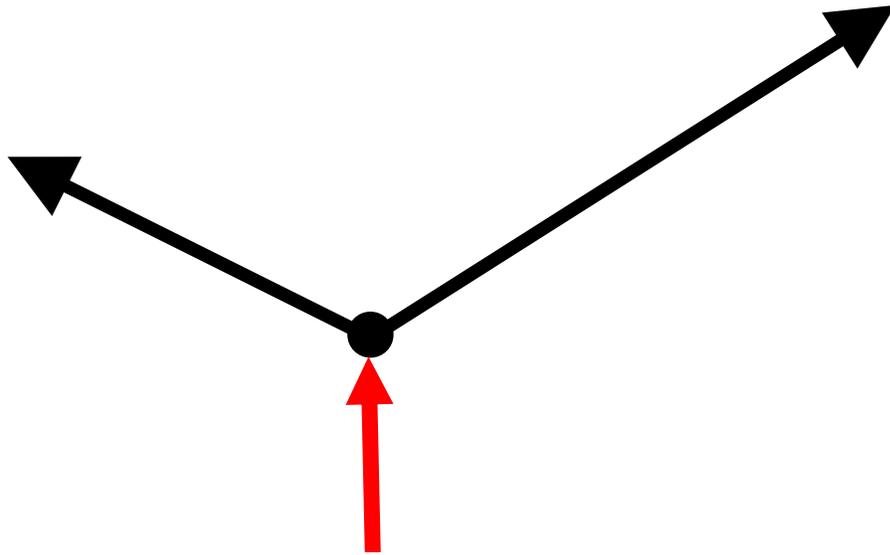
vertex
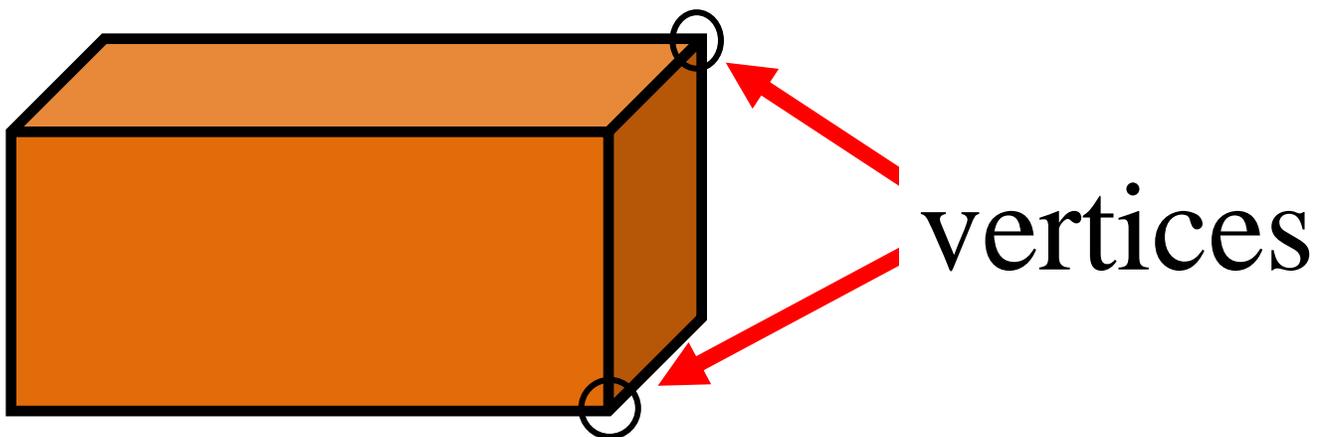
vertices

Intersecting Lines
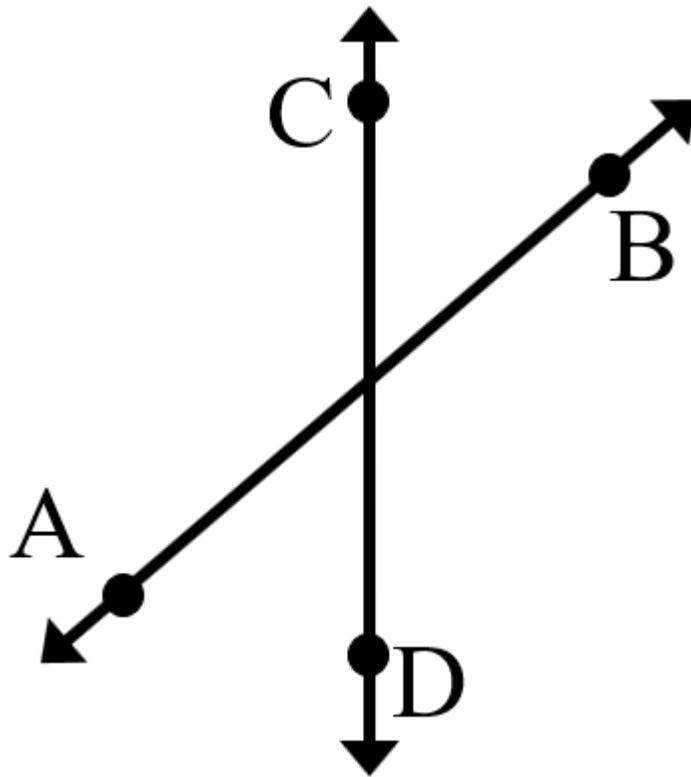
Parallel Lines

line *AB* is parallel to line *XY*

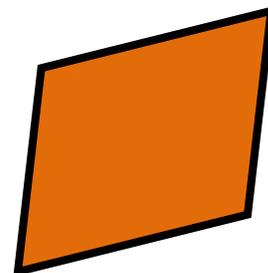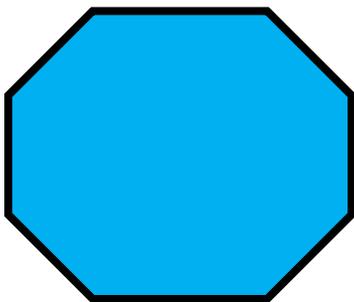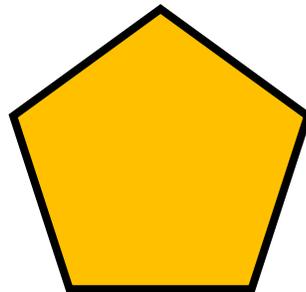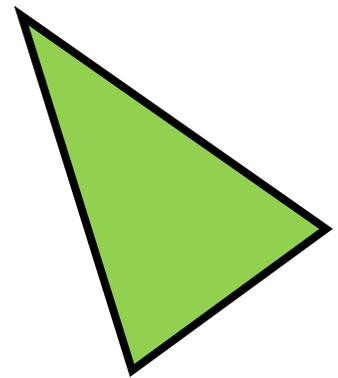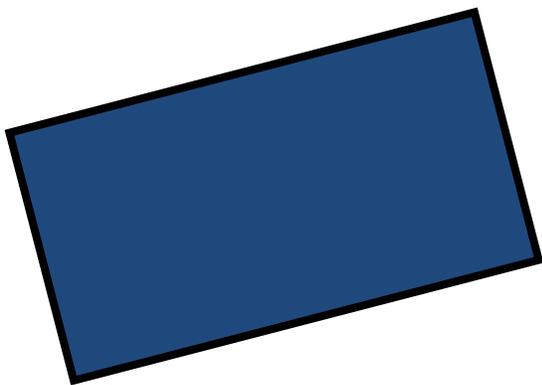$$\overleftrightarrow{AB} \parallel \overleftrightarrow{XY}$$

Perpendicular Lines

line ST is perpendicular to line UV
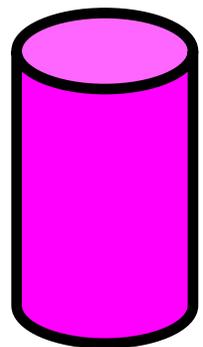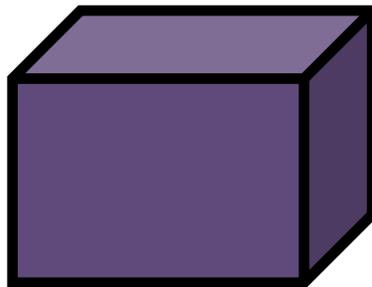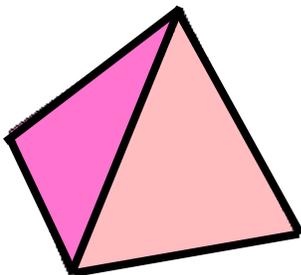
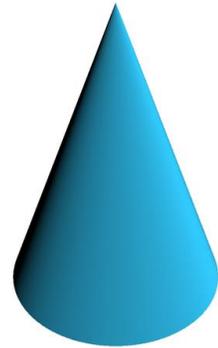$$\overleftrightarrow{ST} \perp \overleftrightarrow{UV}$$

Symbolic Notations

| Figure	Notation	Read
Point	A	Point A
Line	$\overleftrightarrow{AB}$	Line AB
Line segment	$\overline{CD}$	Line segment CD
Ray	$\overrightarrow{RS}$	Ray RS
Angle	$\angle YXZ$, $\angle X$, or $\angle 1$	Angle YXZ, Angle X, or Angle 1
Parallel lines	$\overleftrightarrow{AB} \| \overleftrightarrow{CD}$	Line AB is parallel to line CD
Perpendicular lines	$\overleftrightarrow{ST} \perp \overleftrightarrow{UV}$	Line ST is perpendicular to line UV

Plane Figures

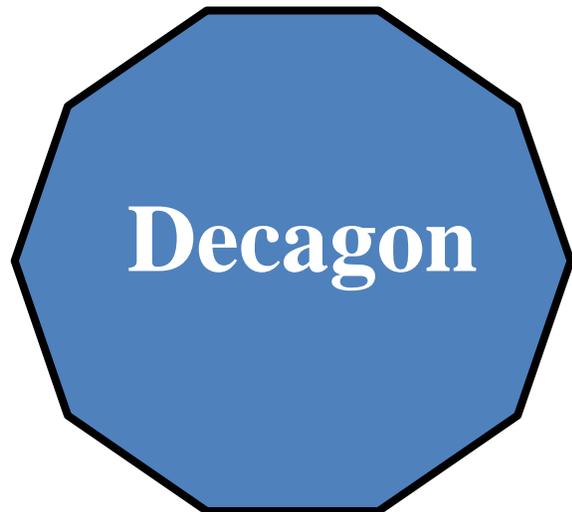# Solid Figures
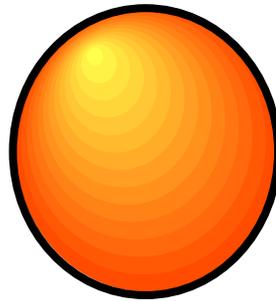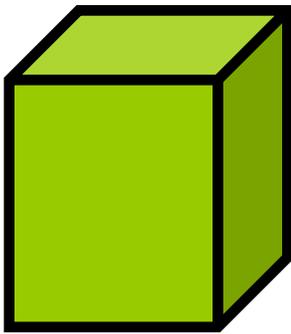
Polygons:
Triangle, Quadrilateral, and Pentagon

Polygons:
Hexagon, Heptagon, and Octagon
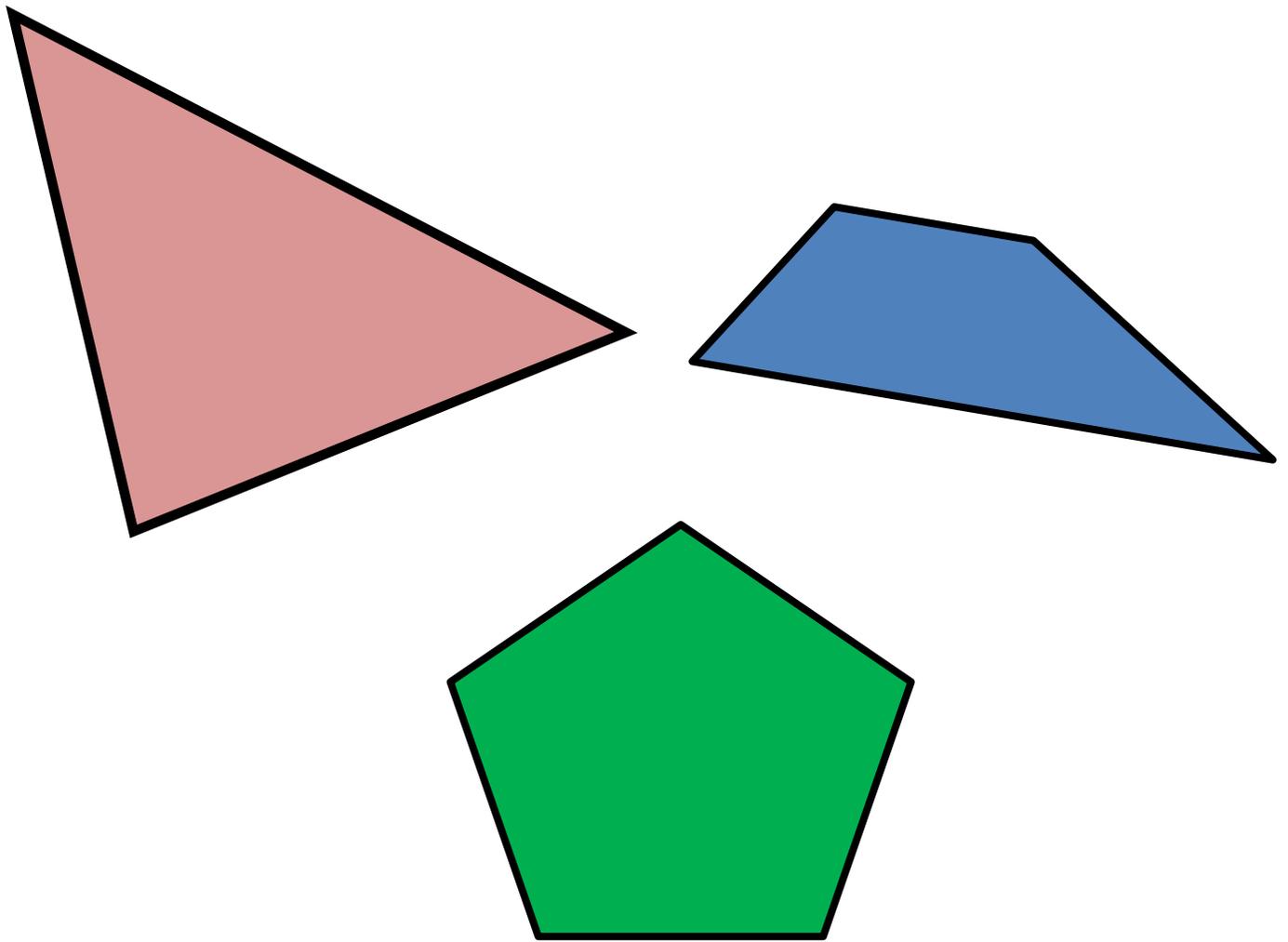
Hexagon

Heptagon

Octagon
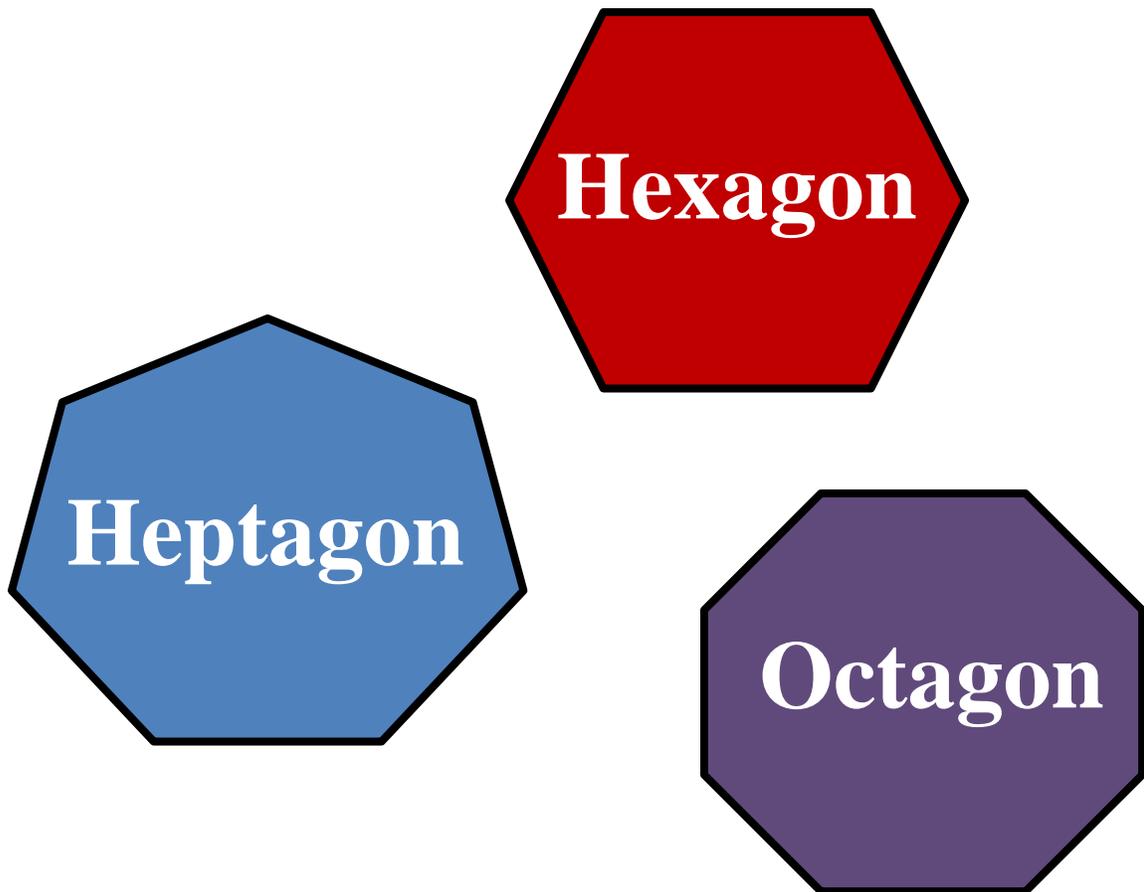
Polygons:
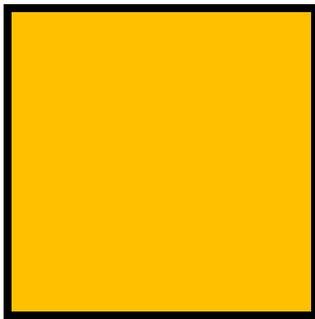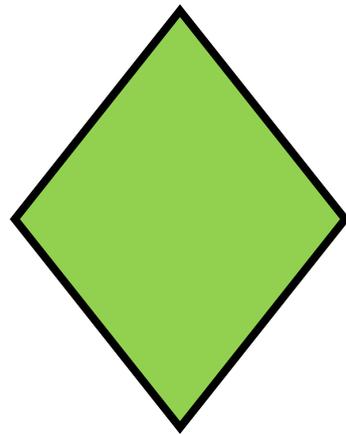## Nonagon and Decagon
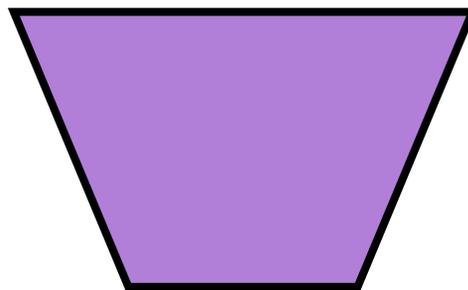
Nonagon

Decagon

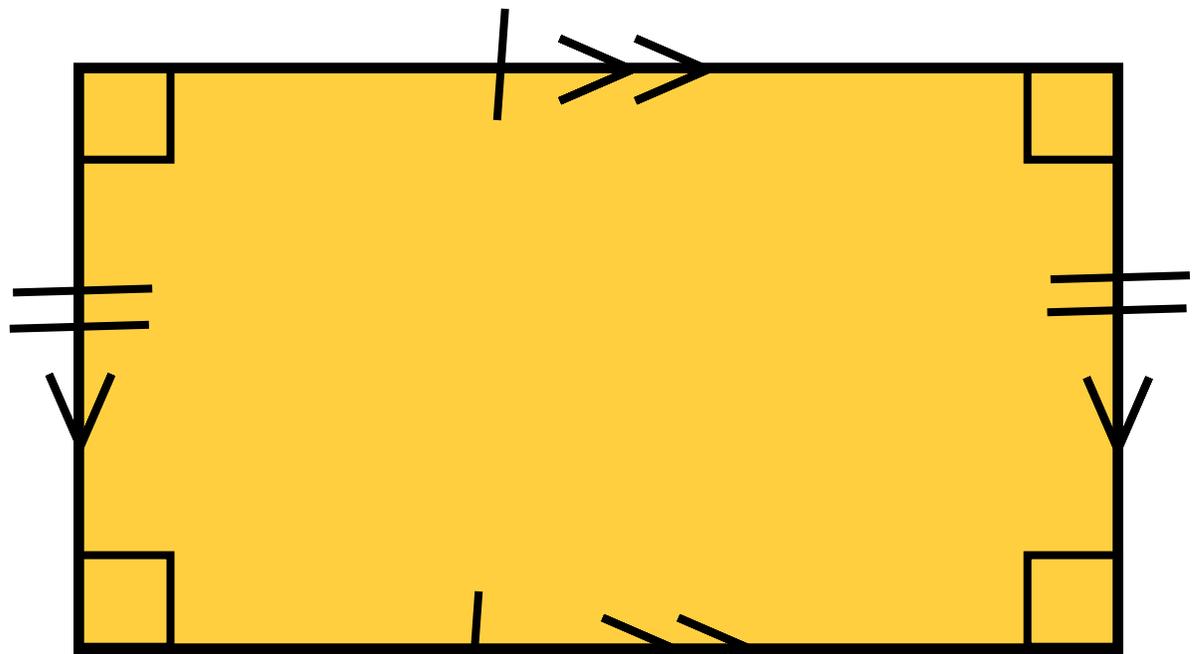# Quadrilaterals

parallelogram
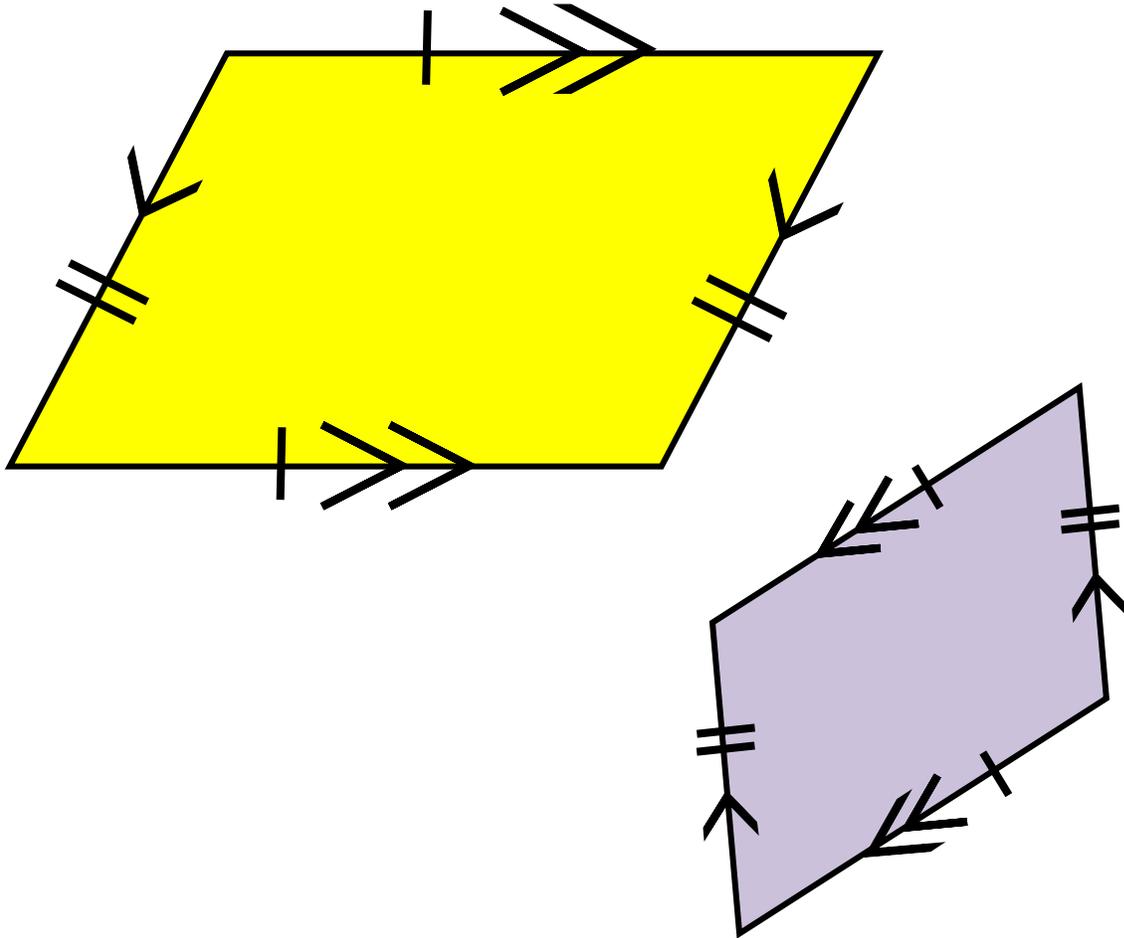
rectangle

square

rhombus

trapezoid

Geometric Markings
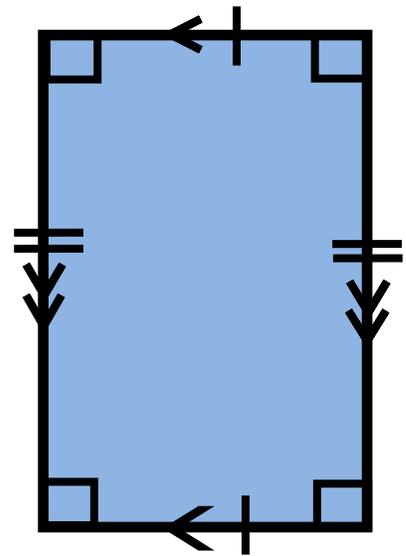

Right angle

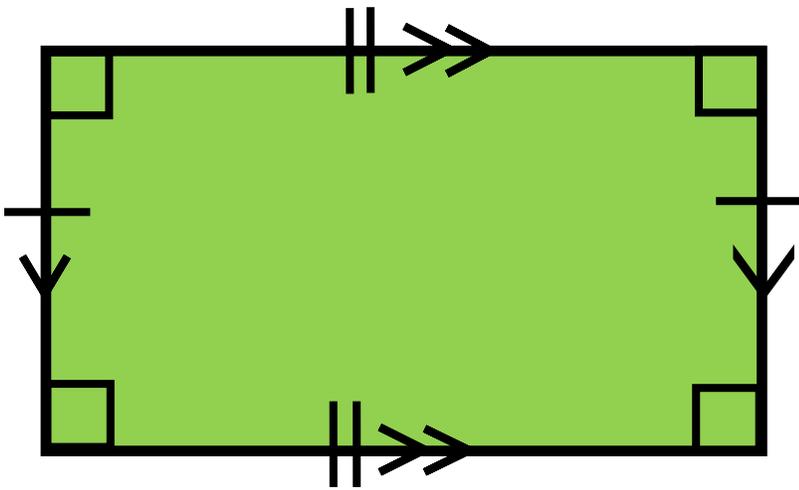Parallel sides

Congruent sides

Parallelogram

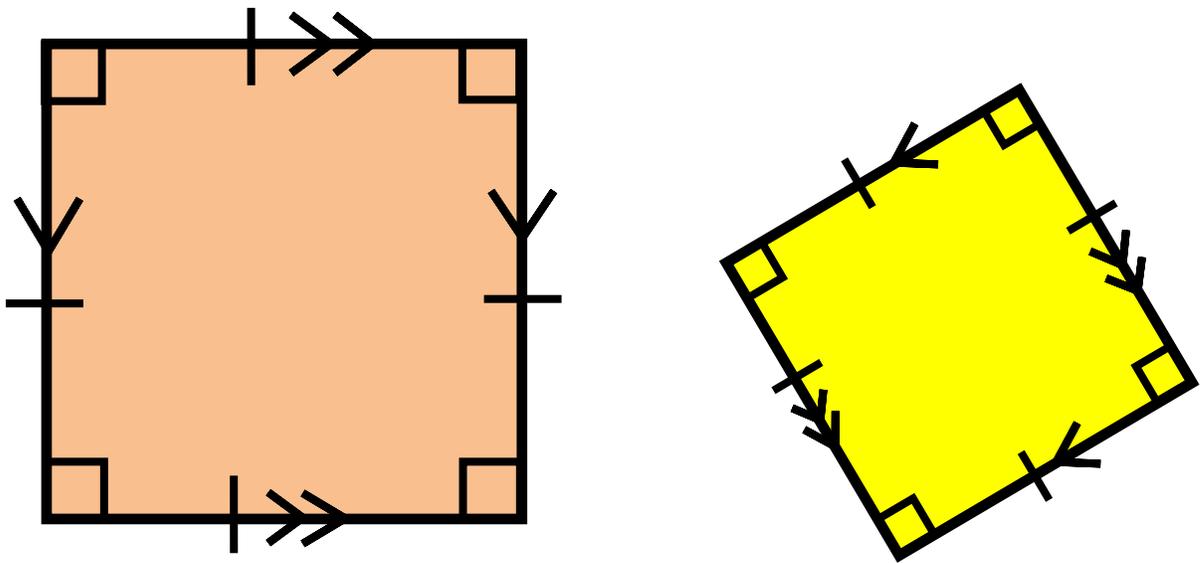- opposite sides are parallel and congruent

Rectangle:
Right Angle

- 4 right angles
- opposite sides are parallel and congruent
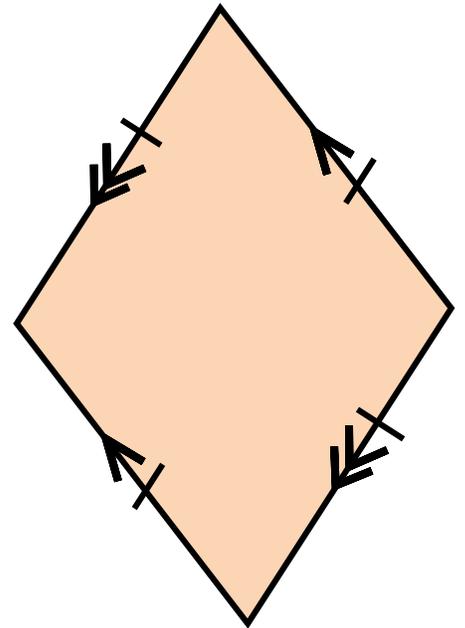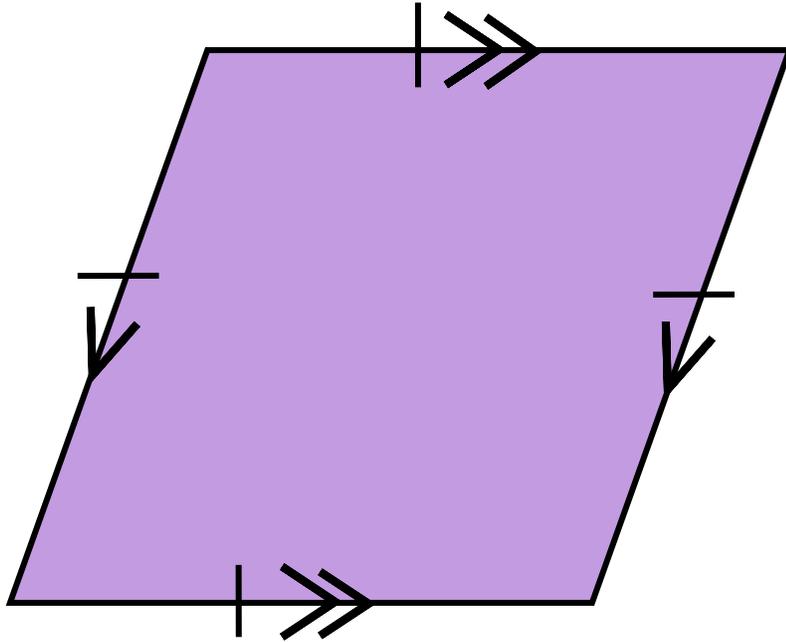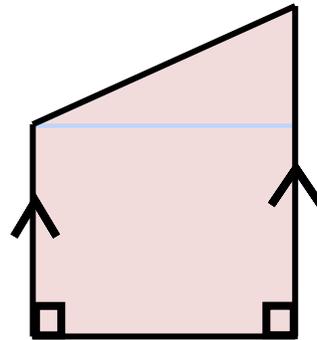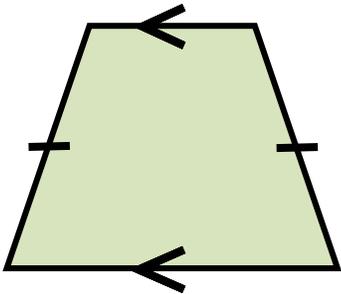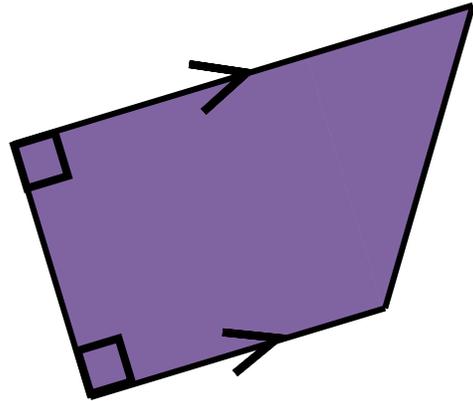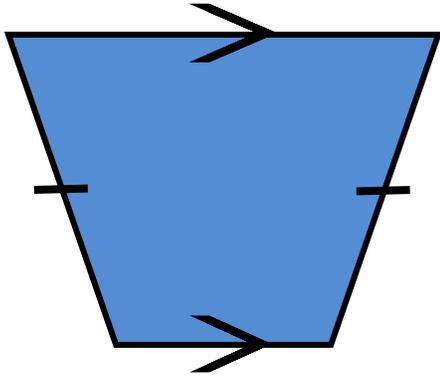
Square:
Right Angle

- 4 right angles
- 4 congruent sides
- 2 pairs of parallel sides

Rhombus

- 4 congruent sides
- 2 pairs of parallel sides
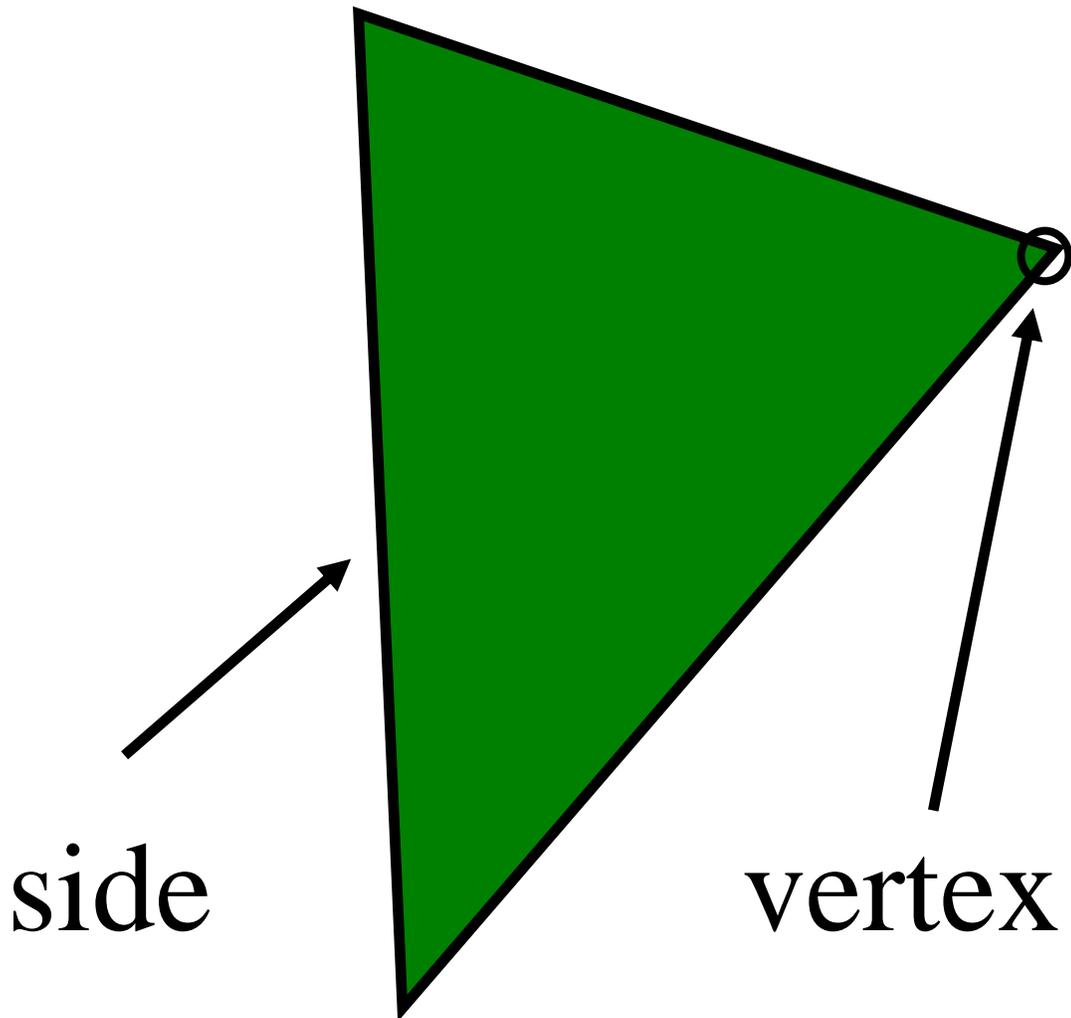- opposite angles are congruent

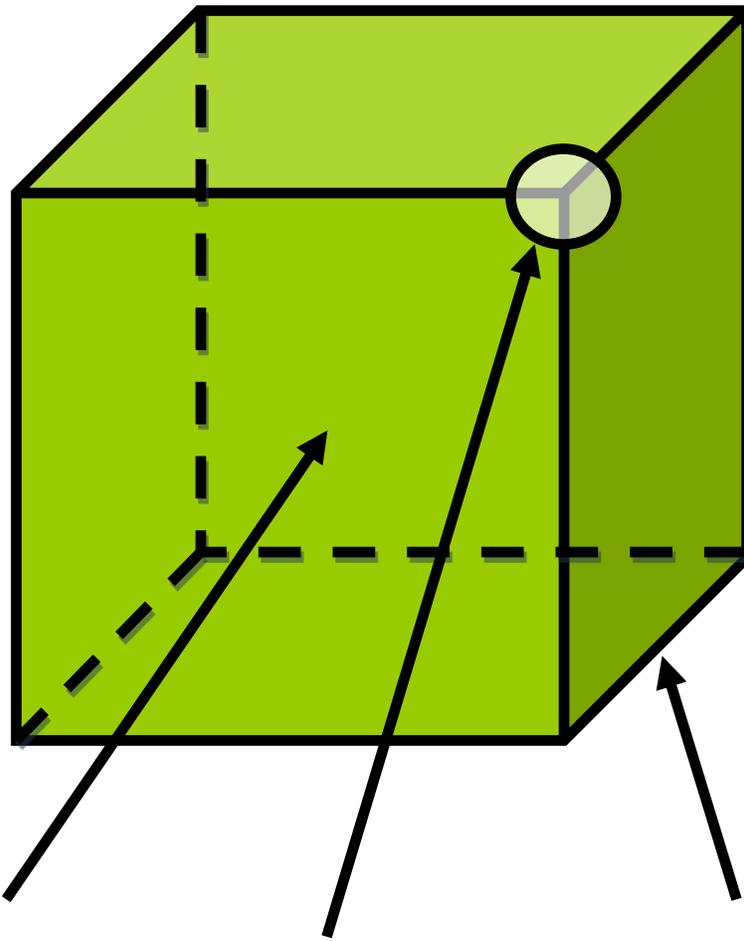# Trapezoid

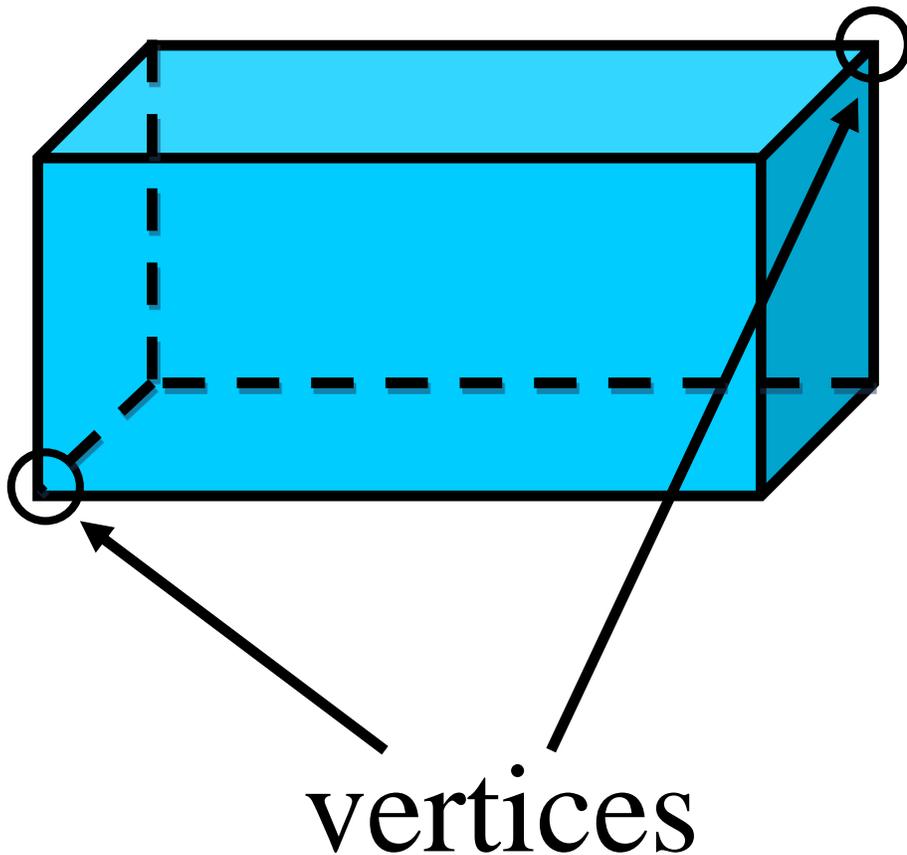- exactly one pair of parallel sides

Triangle:
Side and Vertex

side

vertex

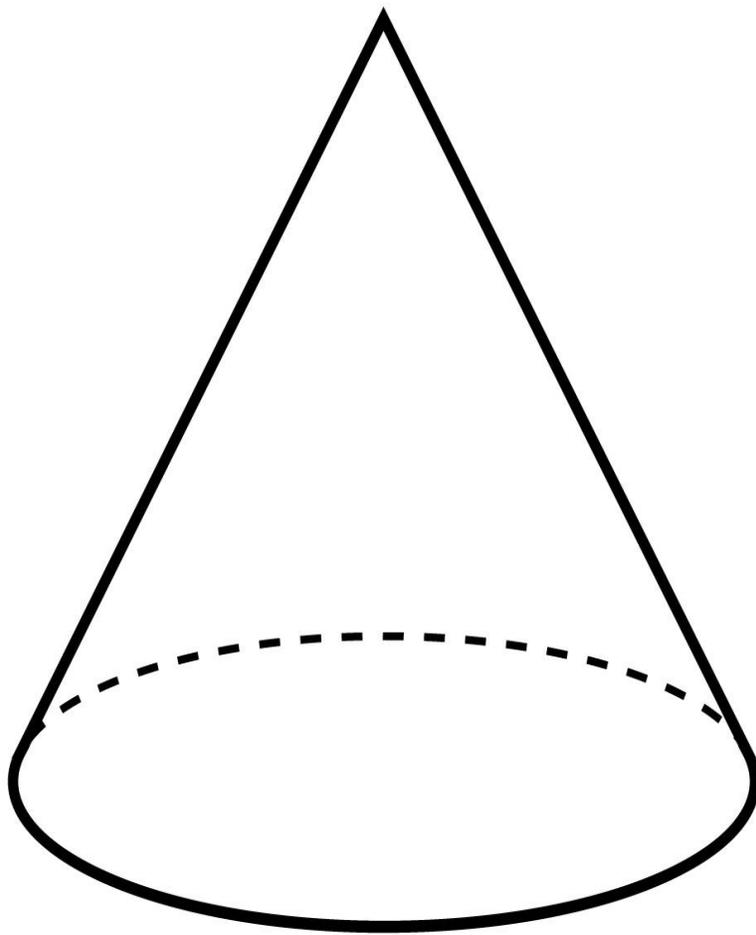# Sphere

Cube

face   vertex   edge

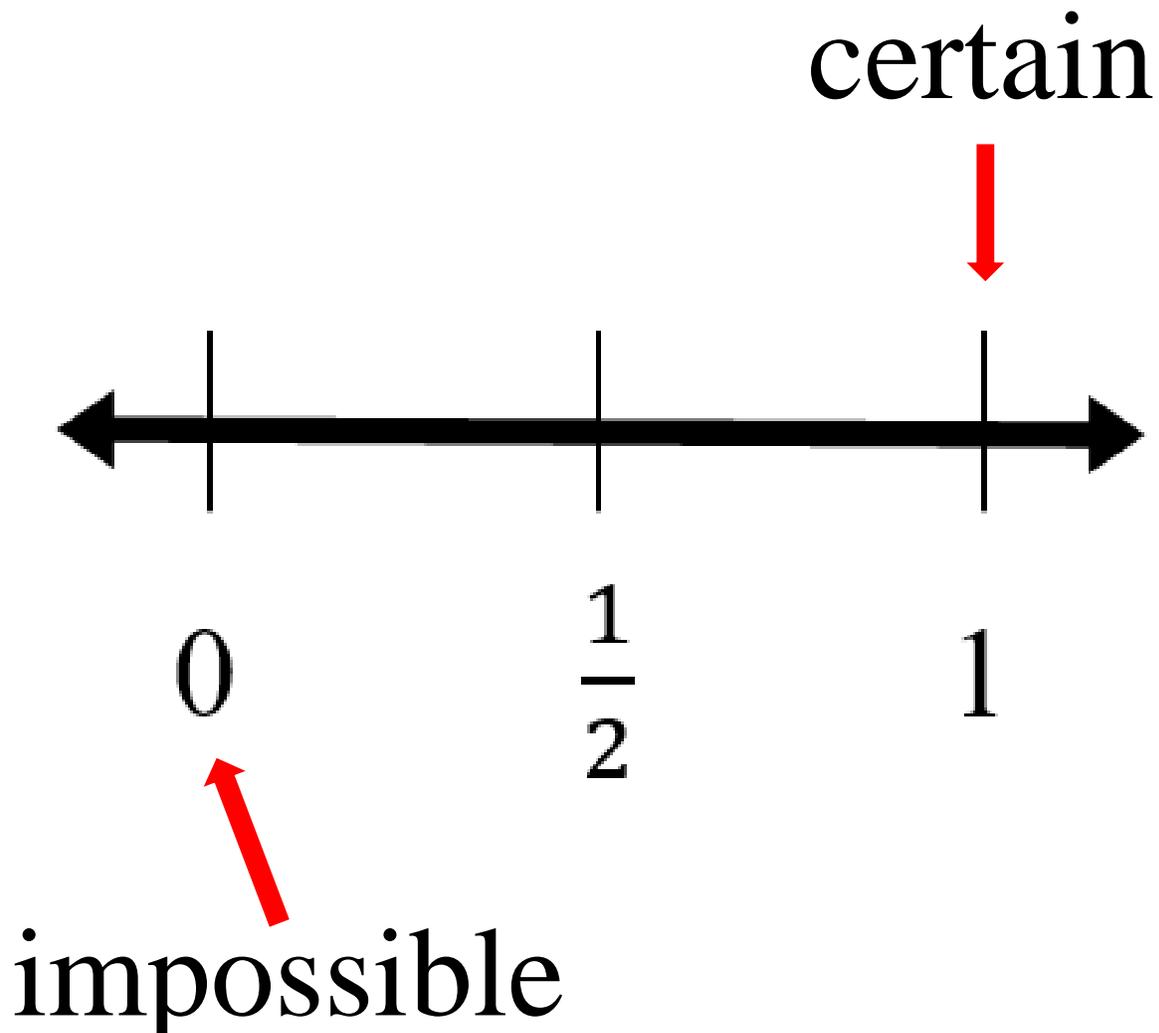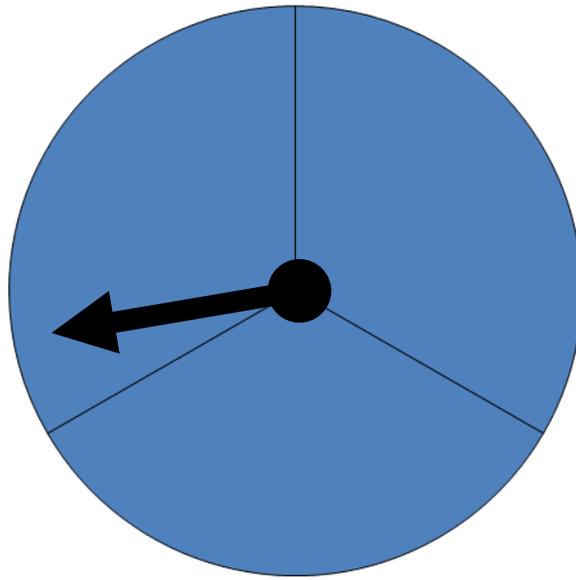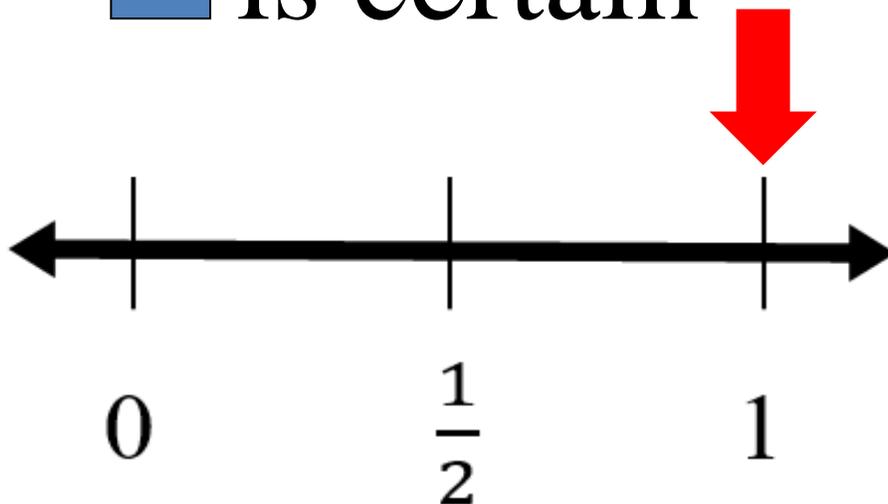# Rectangular Prism:
Vertices

vertices

Square Pyramid

3

3

Cylinder

Cone

Probability Number Line

certain

0    $\frac{1}{2}$ 1
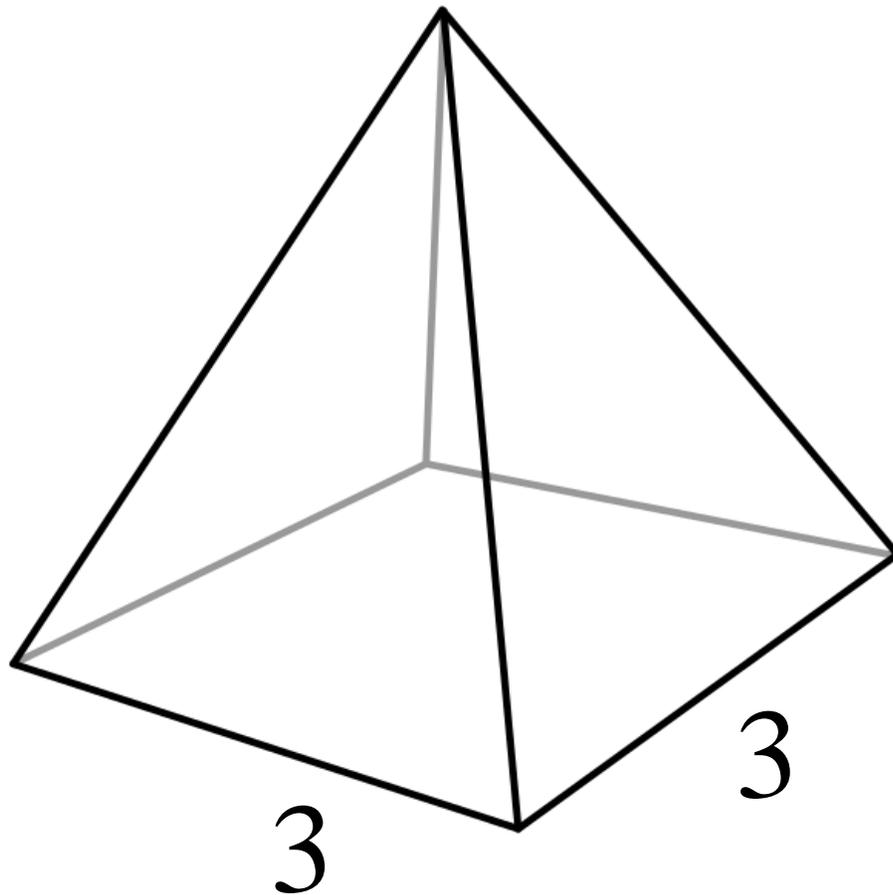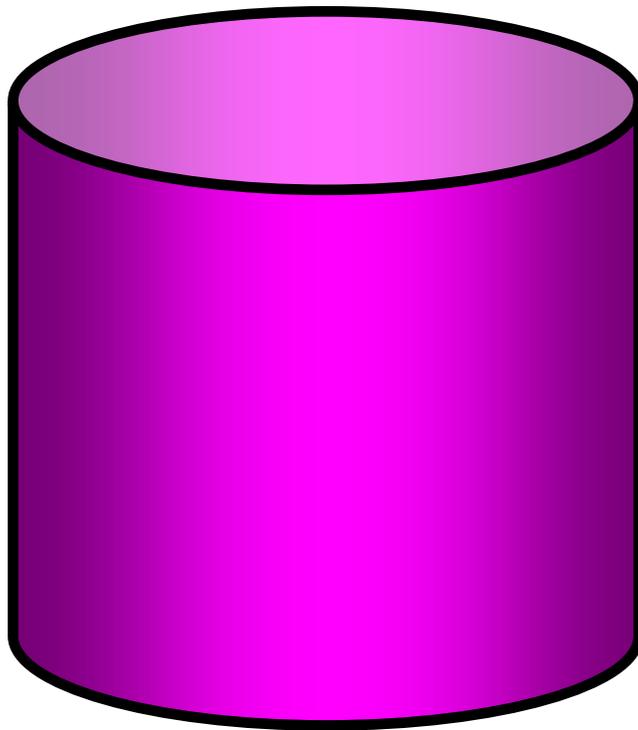
impossible

Certain

■ is certain

0    $\frac{1}{2}$ 1

Likely

is likely

$$0 \qquad \frac{1}{2} \qquad 1$$
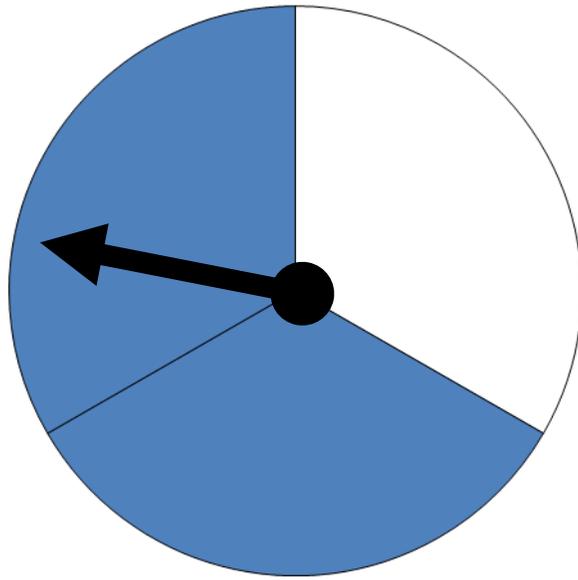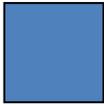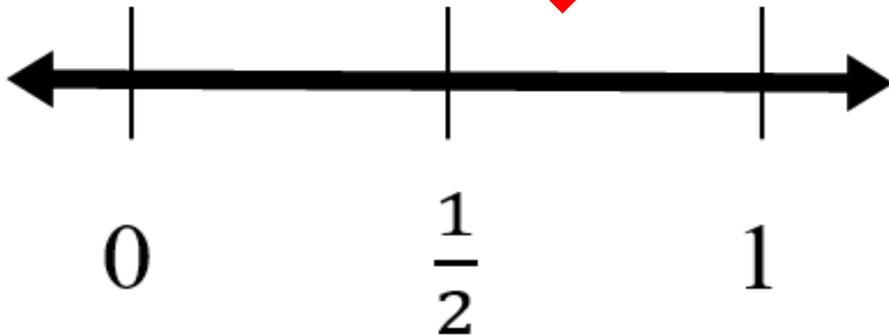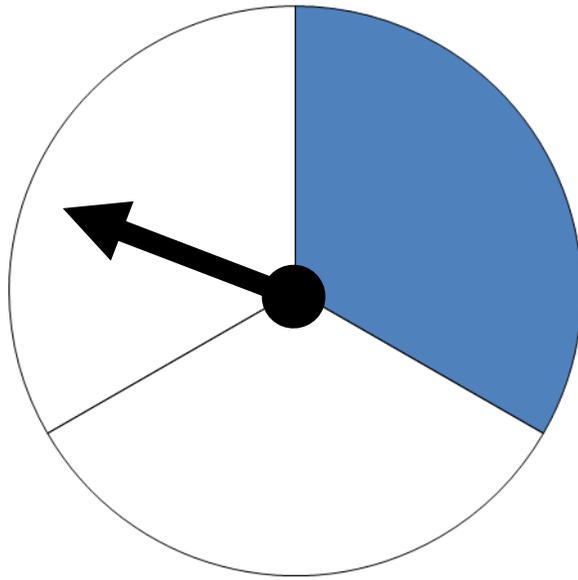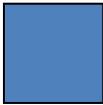
Unlikely

■ is unlikely
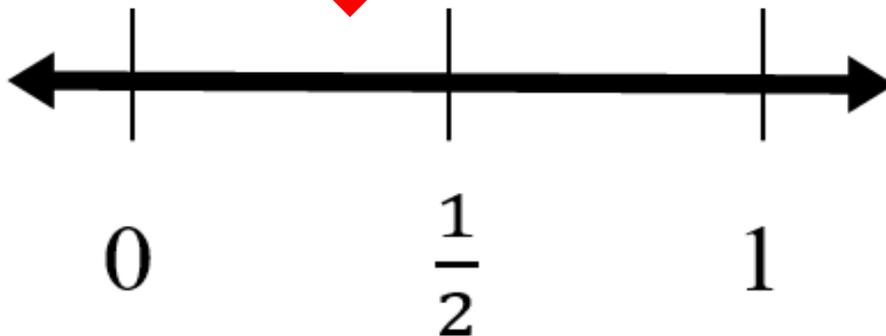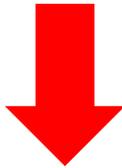
Equally likely

■ and □ are equally likely

Impossible

■ is impossible
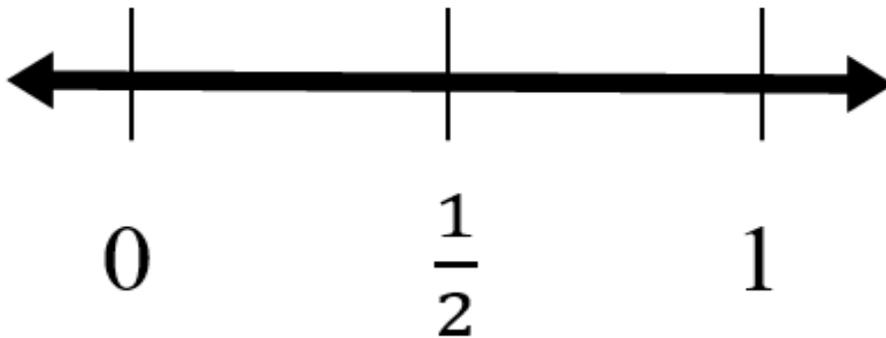
Bar Graph

Our Favorite Ice Cream

Number

Chocolate | Vanilla | Strawberry | Chocolate Chip | Cookie Dough

Kinds of Ice Cream

Line Graph

Temperature Over Time

Temperature (°F)
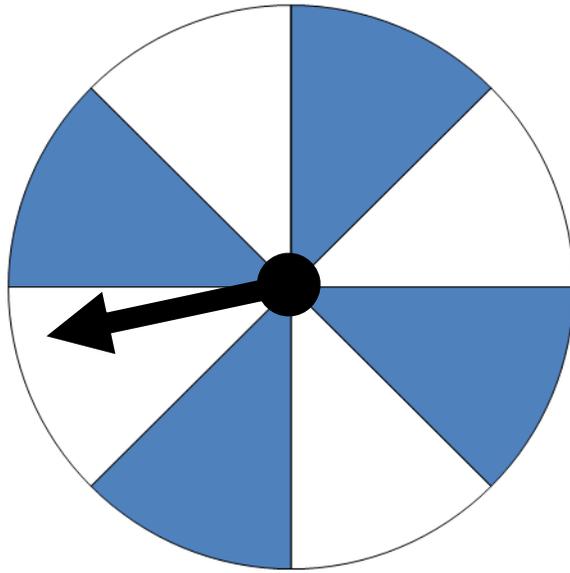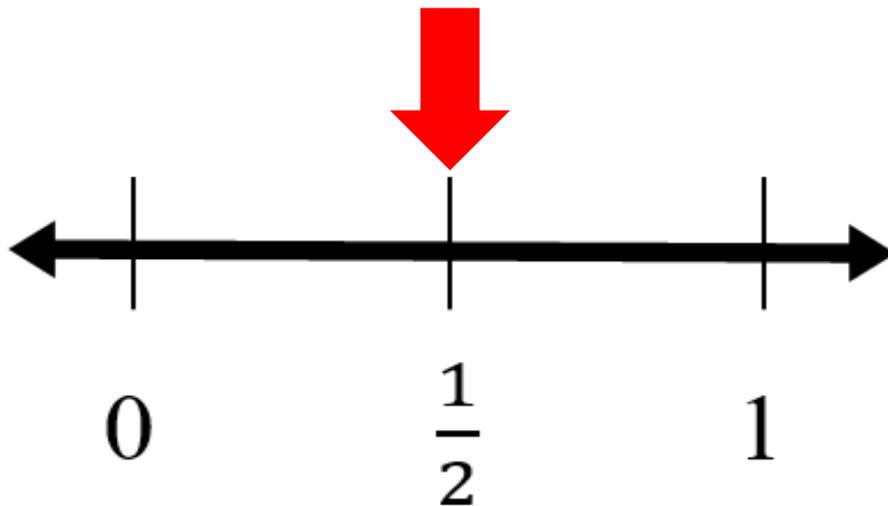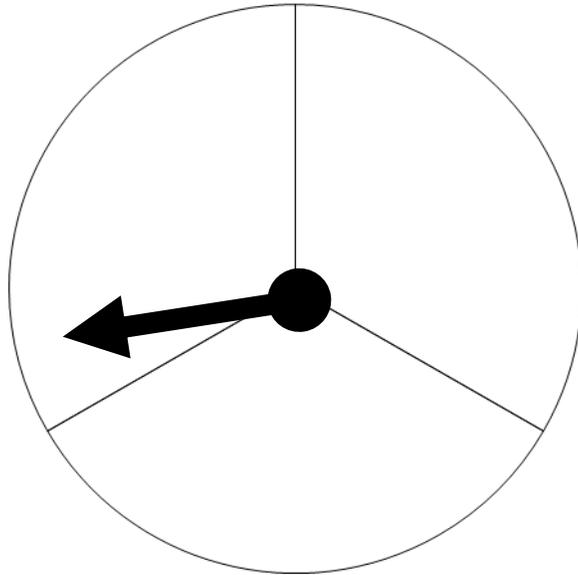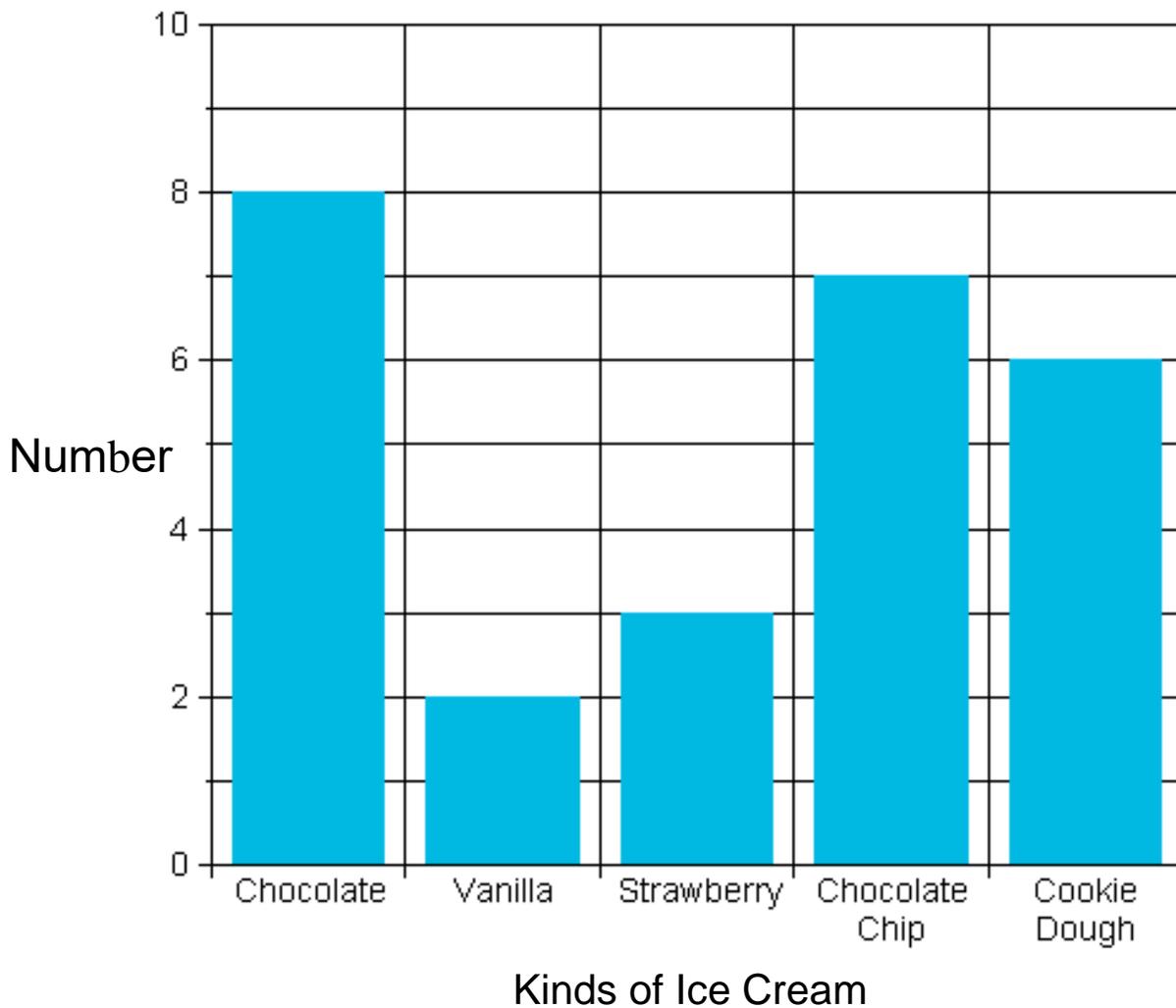
50
40
30
20
10
0

9 a.m.   10 a.m.   11 a.m.   12 p.m.   1 p.m.

Time
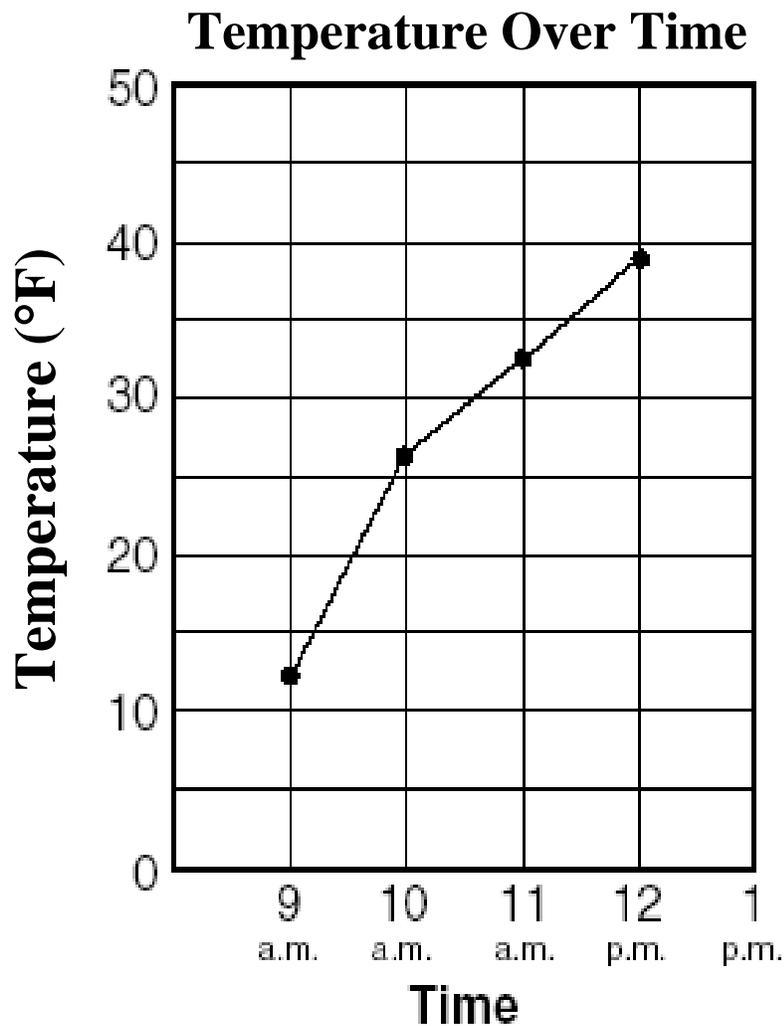
Pattern:
Growing patterns and input/output table

8, 10, 13, 17, __

Rule: _____	
Input	Output
4	11
5	12
6	13
10	17

Rule: _____	
Input	Output
145	130
100	85
75	60
50	?

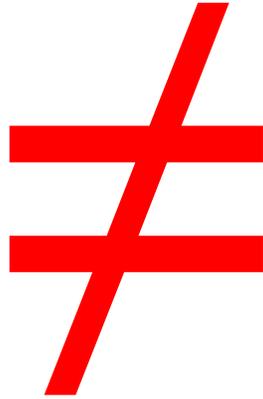| Rule: _____	
Input	Output
2	8
4	16
?	20
8	32

Equality

$=$

$$10 + 8 = 36 \div 2$$

$$8 \times 4 = 190 - 158$$

$$16 \times 3 = 8 \times 6$$

Inequality

$$\neq$$

$$5 + 6 \neq 4 + 8$$

$$9 - 4 \neq 3 \times 3$$

$$5 \text{ x } 7 \neq 35 + 5$$

Expression

a representation of a quantity

$$5$$

$$4 + 3$$

$$8 - 2$$

$$2 \times 7$$