EDZUKATION

"It's a ZOO in education"

Using symbols for unknown numbers
- ❖ ▢ x 8 = ?
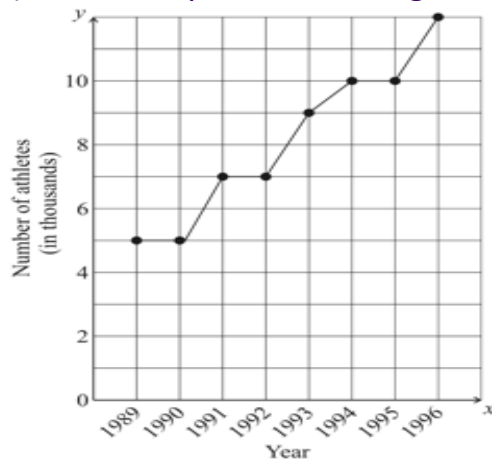- ❖ ▢ = 7
- ❖ 7 x 8 = 56

Bar Graph (use to compare things against other things)

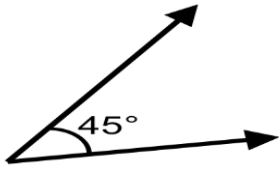**Line Graph –** (use to compare something over a period of time)

Pictographs – (use when adding pictures to show data)

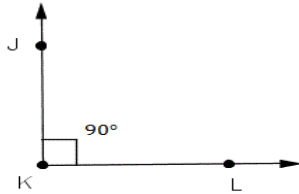| Week	Number of Flights
Week 1	✈✈✈✈✈✈✈✈✈
Week 2	✈✈✈✈✈✈✈
Week 3	✈✈✈✈✈
Week 4	✈✈✈✈
Week 5	✈✈

✈ = 5 Flights

Classifying Triangles by their ANGLES
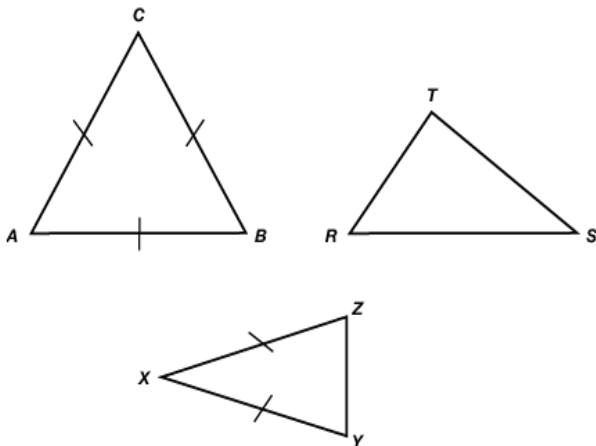acute triangle - less than 90'

right triangle - 90' (usually has a square in it)

obtuse triangle - over 90'
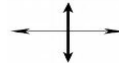

Classify Triangles by their SIDES

Triangle ABC - equilateral - all sides are equal
Triangle RST - scalene - no sides are equal
Triangle XYZ - isosceles - two sides are equal

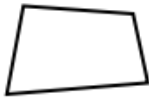❖ **parallel lines -** two lines that run side by side =========

❖ **perpendicular lines -** two lines that intersect making a cross

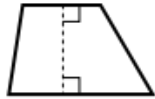❖ **intersecting lines -** two lines that intersect making an X
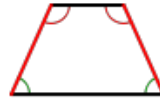
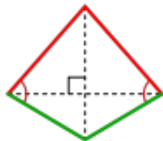---

Quadrilaterals

Trapezium
(Amer. Eng.)

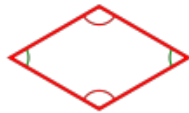Trapezoid *(Amer. Eng.)*
Trapezium *(Brit. Eng.)*

Isosceles trapezoid *(Am.)*
Isosceles trapezium *(Br.)*

Parallelogram

Kite

Rhombus
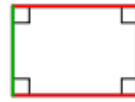
Rectangle
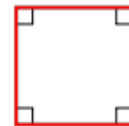
Square

<u>Faces</u> - flat pieces
<u>Edges</u> - lines;
<u>Vertices</u> – corners
LABEL THE CUBE BELOW
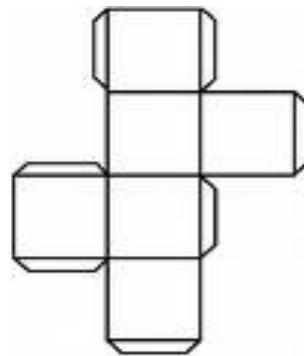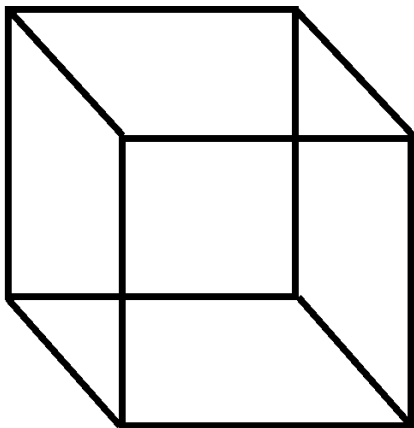
-<u>unfolded cube</u>

Coordinate System - a basketball player DRIBBLES (left to right) first and then (up and down) SHOOTS
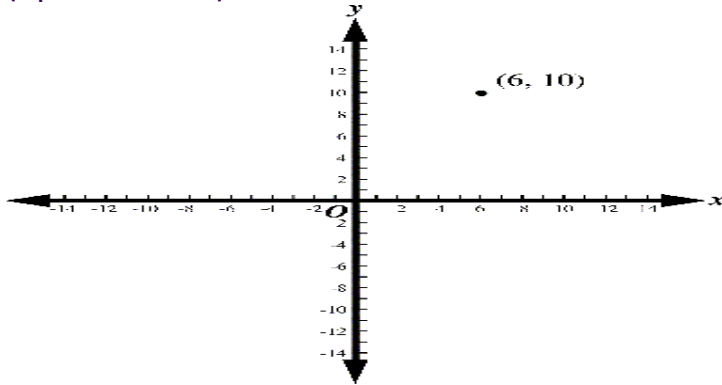
Using a protractor - if the angle is bigger than 90', use the bigger numbers to tell the measurement of the angle.
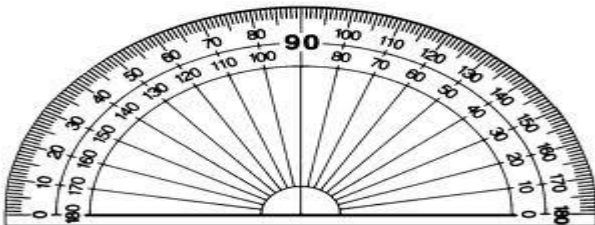
- ❖ Half of a rotation is 180' (1/2 a circle)
- ❖ A full rotation is 360' (a full circle)
- ❖ a 90' rotation is ¼ - it takes 4(90') to make one circle

Weight - how heavy something is
- ❖ 16 ounces (oz) = 1 pound (lb)
    - o 3lbs = 48 oz
    - o 33 oz = 2 lbs 1 oz
- ❖ 2,000 lbs = 1 ton (T)
    - o 7,000lbs = 3 ½ T
    - o 8 T = 16,000 lbs
- ❖ 1,000 grams (g) = 1 kilogram (kg)
    - o 5,500 g = 5 ½ kg
    - o 6 kg = 6,000 g

Place Value

$$\underline{1}\,,\underline{2}\quad\underline{3}\quad\underline{4}\,,\underline{5}\quad\underline{6}\quad\underline{7}\;.\;\underline{8}\quad\underline{9}\quad\underline{0}\quad\underline{1}$$

millions | hundred-thousands | ten-thousands | thousands | hundreds | tens | ones | tenths | hundredths | thousandths | ten-thousandths
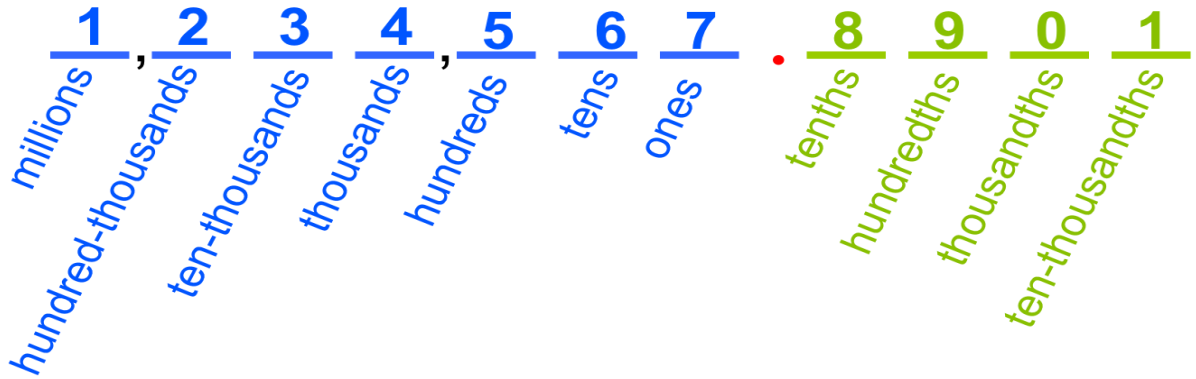
Three ways to describe a number
standard form: 7, 526
word form: seven thousand, five-hundred, twenty-six
expanded form: 7000 + 500 + 20 + 6

Rounding/estimating numbers
❖ If the digit after the one being rounded is less than 5 (0, 1, 2, 3 or 4), we round down.
❖ If the digit after the one being rounded is 5 or more (5, 6, 7, 8, or 9), we round up.
   o round to the nearest thousand: 5,633 = 6,000
   o round to the nearest hundred: 4,311 = 4,300
   o round to the nearest ten: 7,344 = 7,340

Multiplication steps for: 628 x 7
"7 times 8 is 56." Write 6, carry 5.
"7 times 2 is 14, plus 5 is 19." Write 9, carry 1.
"7 times 6 is 42, plus 1 is 43." Write 43

$$\begin{array}{r}{\scriptstyle 15}\\ 628\\ \times 7\\ \hline 4396\end{array}$$

628 = 6 hundreds + 2 tens + 8 ones

$$\begin{array}{r}\times 7\\ \hline 56 \text{ ones}\\ 14\;\; \text{tens}\\ 42\;\;\; \text{hundreds}\\ \hline 4396\end{array}$$

Division steps for: <u>1,798/5</u>
  - ❖ Begin, "5 goes into 17 three (3) times (15) with 2 left over."
  - ❖ Write 3 over the 7 (not over the 1), and write the remainder 2 next to the 9.
  - ❖ Continue: "5 goes into 29 five (5) times (25) with 4 left over.
  - ❖ Write 5 over the 9, and write the remainder 4 next to the 8.
  - ❖ Finally, "5 goes into 48 nine (9) times (45) with 3 left over."
  - ❖ Write 9 over the 8. The final remainder is 3.

$$\begin{array}{r} 3\ 5\ 9\ R\ 3 \\ \hline 5)1\ 7\,^2 9\,^4 8 \end{array}$$

$$\frac{Quotient}{Divisor\ )Dividend}$$

***KNOW THESE

Decimals
  - ❖ line up your decimals when adding/subtraction

$$\begin{array}{r} 95.45 \\ 89.82 \\ \hline 185.27 \end{array}$$

Move the decimal over in the final answer when multiplying/dividing

$$\begin{array}{r} 6.28 \\ \times 25.7 \\ \hline 4396 \\ 3140 \\ 1256 \\ \hline 161.396 \end{array}$$

Fractions
  - ❖ <u>equivalent fractions</u>: they equal the same
    - o 1/2 (multiply the top AND bottom by any number - I chose 3)= 3/6
    - o 2/3 (multiply the top AND bottom by any number - I chose 4)= 8/12

Equivalent Fractions

1/2	1/2

1/3	1/3	1/3

1/4	1/4	1/4	1/4

1/5	1/5	1/5	1/5	1/5

1/6	1/6	1/6	1/6	1/6	1/6

1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8

1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/9

1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10	1/10
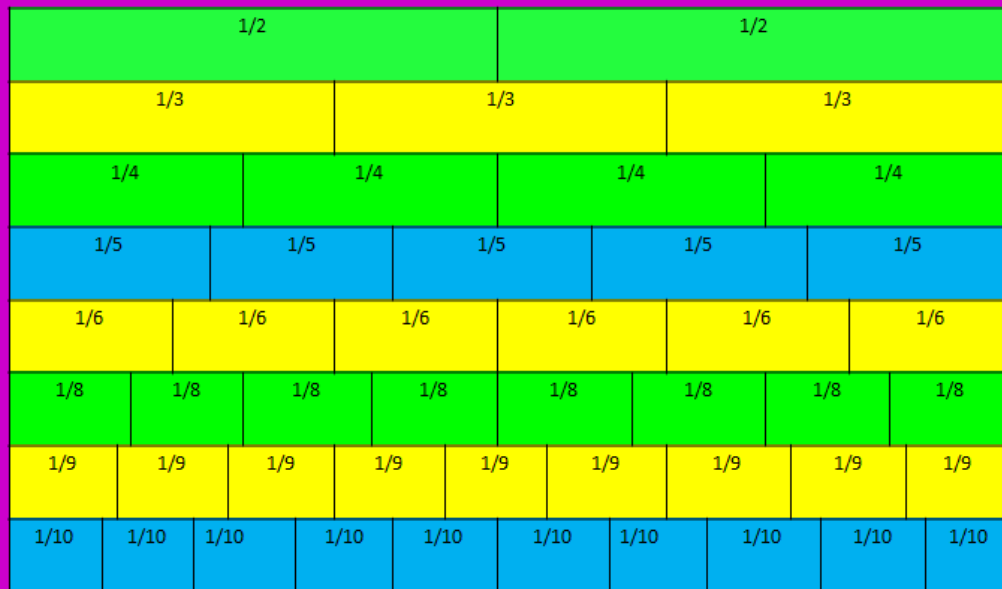
Mixed Numbers

The four boys ate $2\frac{5}{6}$ pizzas.

Improper Fractions

Larger (or equal) $\longrightarrow$

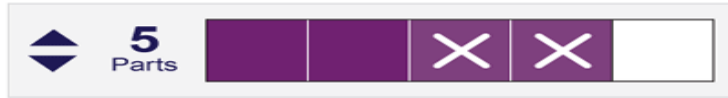Smaller (or equal) $\longrightarrow$

$$\frac{9}{5} = 1\ 4/5$$

Adding and subtracting fractions

Model the addition or subtraction problem and complete the number sentence.
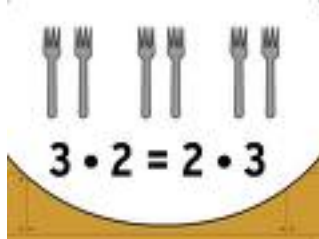
$\frac{3}{8}$ + $\frac{2}{8}$ = $\boxed{\frac{5}{8}}$ ⬆⬇ **8** Parts

$\frac{4}{5}$ − $\frac{2}{5}$ = $\boxed{\frac{2}{5}}$ ⬆⬇ **5** Parts

Properties of Math

Commutative Property

$3 \cdot 2 = 2 \cdot 3$

Associative Property

$(3 \times 4) \times 5 = 3 \times (4 \times 5)$

$12 \times 5 = 3 \times 20$

$60 = 60$

Distributive Property

$5 \times (6 + 4)$

$6 + 4 = 10$

5   5

6   4

$5 \times 6 + 5 \times 4$
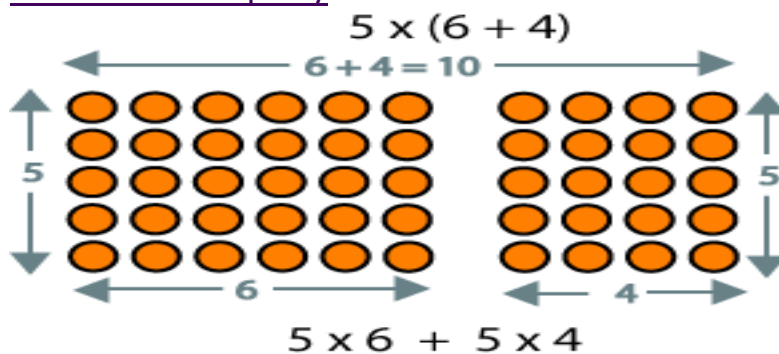
Practice Problems

1) There are 366 dimples on a golf ball. How many dimples are on 27 golf balls?

2) The company took 59 employees to a management conference across the country. Each round trip plane ticket cost $799. What was the total amount needed to take the employees to the conference?

3) 654/3   4) 344/9   5) 722/4

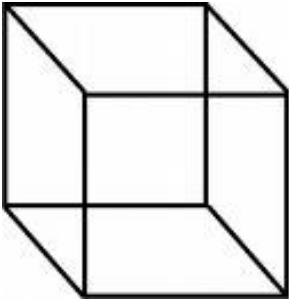Round to the nearest thousand

3,554_____6,999 _____ 3,422 _____

Round to the nearest hundred

8,234 _____5,606 _____9,999 _____

Round to the nearest hundredths

45.89 _____ 377.987_____340.32 _____

Identify the # of: faces_____; edges _____; vertices _____

Greater than (>), less than (<), or equal (=)

4/8 _____ 3/6   54.45 _____ 45.54   788.55 _____ 99.999

2/3 _____ 7/8   centimeter _____inches   feet _____yards

Convert
8 tons = _____lbs   15,000lbs = _____T   36 in = _____ ft

6ft = _____in   48hrs = _____ dys   120 min = _____hrs