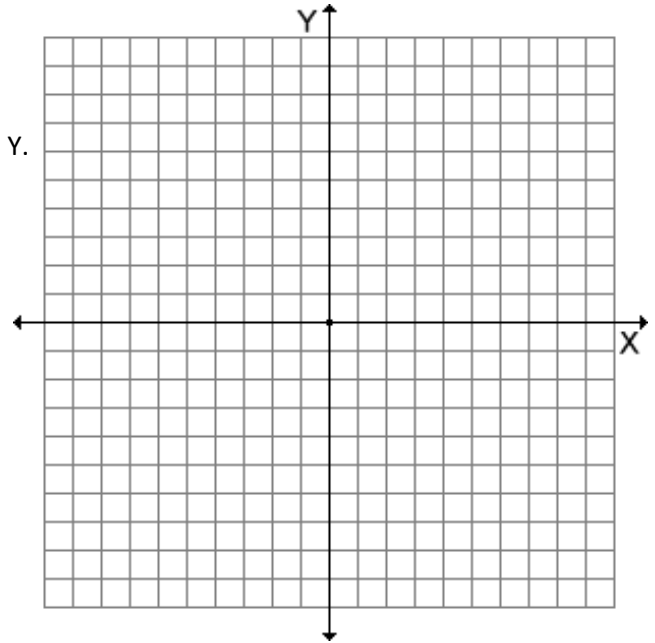1) Consider three points, X, Y, Z on a coordinate graph.
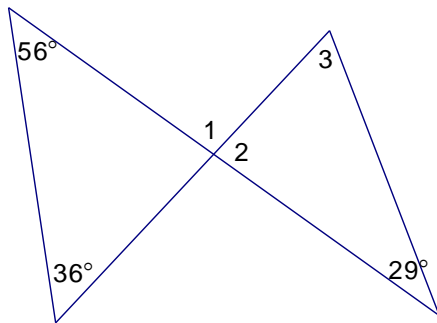   The x-coordinates of X and Y are the same.
   The y-coordinate of Z is between the y-coordinates of X and Y.
   The x-coordinate of Z is less than the x-coordinate of X.
   Is ∠X of ΔXYZ acute, right, or obtuse?

2) Find the numbered angle measures.

56°   3
1
2
36°   29°

3) Know this stuff:

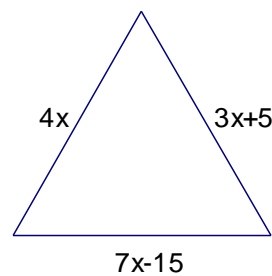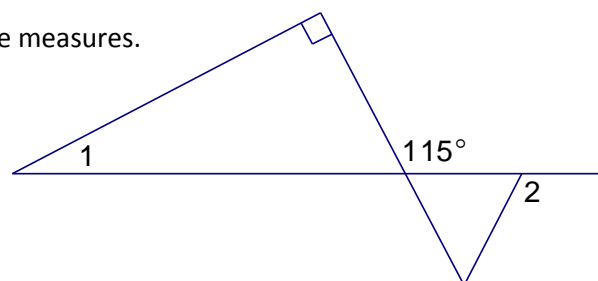| right triangle | acute triangle | obtuse triangle | equiangular triangle |
| scalene triangle | isosceles triangle | equilateral triangle | vertical angles |
| linear pair | base angles | legs | vertex angle |

4x   3x+5

4) What is a side length for this equilateral triangle?

7x-15

5) Find the numbered angle measures.

1   115°
2

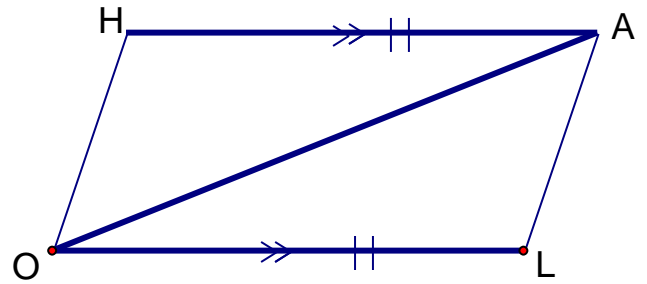6) Which triangles are congruent?   Which applies?

    A) $\triangle HAO \cong \triangle LAO$ E) SSS

    B) $\triangle HLA \cong \triangle LOA$ F) SAS

    C) $\triangle HOA \cong \triangle AOL$ G) ASA
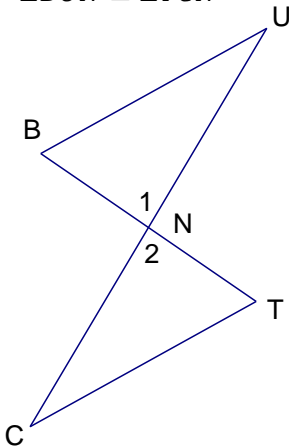
    D) $\triangle AOH \cong \triangle OAL$ H) AAS

7) Given: $\overline{CN} \cong \overline{UN}$

          N is midpt of $\overline{BT}$

    Prove: $\triangle BUN \cong \triangle TCN$

Statements	Reasons
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)

8) Given: $\triangle RDB$ isosceles w/vertex D

          A is midpt of $\overline{RB}$

    Prove: $\angle 1 \cong \angle 2$

Statements	Reasons
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)
6)	6)
7)	7)

9) Fill in the missing coordinates.

y-axis

(,)

(, b)

(,)

(,)   (,)   (2a,)

x-axis

10) What is the classification of a triangle with vertices: A(0, 0), B(4, 3), and C(4, −3) ?
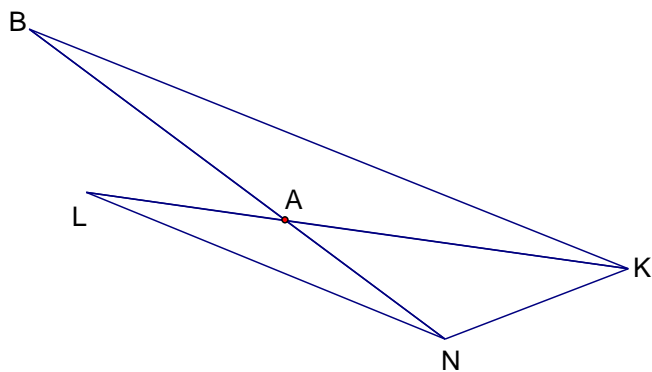
11) $m\angle ANK = 130.$

   $\triangle ANK$ is isosceles with $\overline{AN} \cong \overline{NK}$.

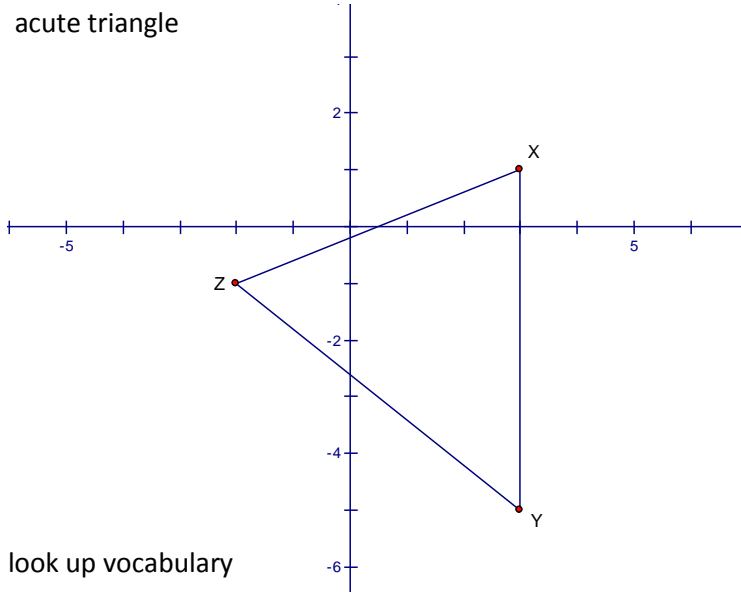 $\triangle BAK$ is isosceles w/ $\overline{AL} \cong \overline{AN}$.

   $\triangle LAN$ is isosceles w/ $\overline{AB} \cong \overline{AK}$.

   Find $m\angle B$.

B

L

A

K

N

12) If $\triangle FOR \cong \triangle ZAS$ then $\overline{RF} \cong$ _____

1) acute triangle

2) $m\angle 1 = 92 \quad m\angle 2 = 88 \quad m\angle 3 = 63$

3) look up vocabulary

4) 4x = 3x + 5

      x =   5

      4(5) = 20 /// 3(5) + 5 = 20 /// 7(5) − 15 = 20

5) $m\angle 1 = 25 \quad m\angle 2 = 115$

6) D

    SAS (angles come from || → alternate interior)

7) $\overline{CN} \cong \overline{UN}$ given

   N is midpt of $\overline{BT}$ given

   $\overline{BN} \cong \overline{NT}$ $midpt \to \cong segs$

   $\angle 1 \cong \angle 2$ $vertical \angle s \cong$

   $\triangle BUN \cong \triangle TCN$ SAS

8) $\triangle RDB$ isosceles w/vertex D given

   A is midpt of $\overline{RB}$ given

   $\overline{DR} \cong \overline{DB}$ $isos \to \cong segs$

   $\overline{RA} \cong \overline{AB}$ $midpt \to \cong segs$

   $\overline{DA} \cong \overline{DA}$ reflexive

   $\triangle RAD \cong \triangle BAD$ SSS

   $\angle 1 \cong \angle 2$ CPCTC

9) (0,2b)

   (0, b)   (a, b)

   (0, 0)   (a, 0)   (2a, 0)

10) AB = $\sqrt{25}$ = 5   isosceles

    BC = $\sqrt{36}$ = 6

    AC = $\sqrt{25}$ = 5

11) 17.5

12) $\overline{SZ}$