

Geometry Practice Test Name: _____

1. Write a definition for each of the words below:

Equidistant:

Concurrent:

Altitude:

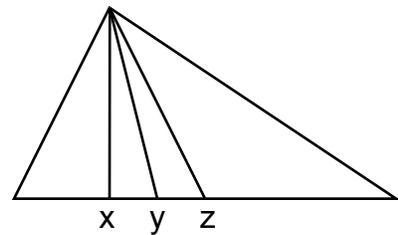
Centroid:

2. Identify the three segments in the triangle at right.

x : _____

y : _____

z : _____

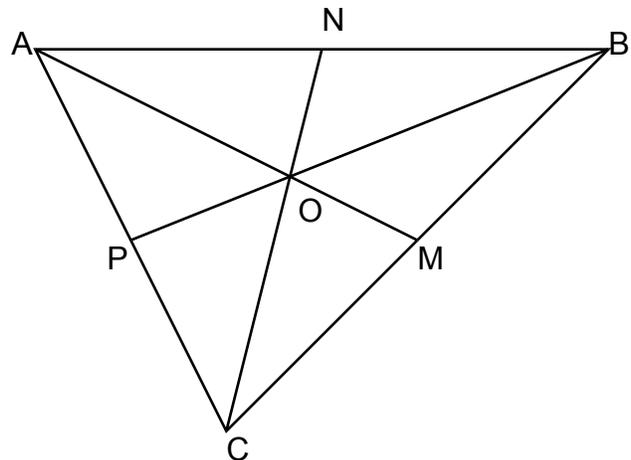


3. The triangle below shows three medians which are concurrent at point O.

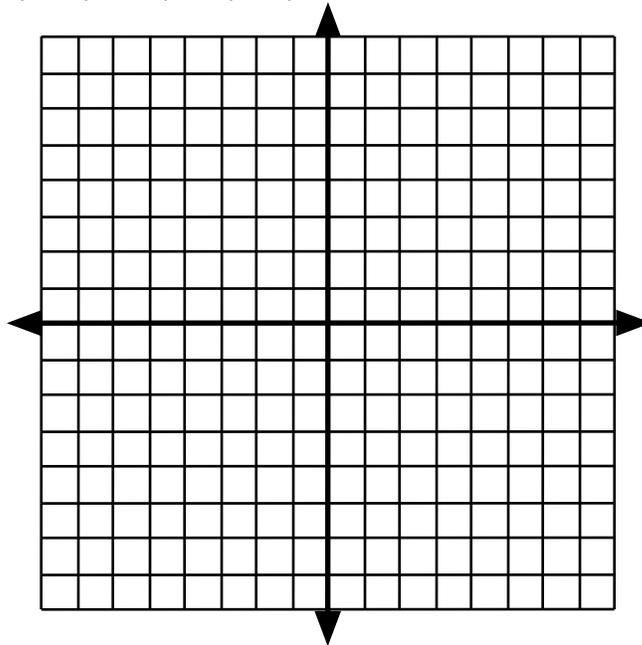
a) If $\overline{AO} = 12$ cm, then what is the length of \overline{AM} ?

b) If $\overline{PO} = 5$ cm, what is the length of \overline{PB} ?

c) If $\overline{NC} = 12$ cm, what is the length of \overline{OC} .



4. a) Plot triangle ABC with A(-5, 0); B(-1, -4); C(7, 2)



b) Calculate the coordinates of M, the midpoint of \overline{AC} , show work clearly.

M(____,____)

c) Calculate N, the midpoint of \overline{AB}

N(____,____)

d) Calculate the length of \overline{BC}

BC = _____

e) Calculate the length of \overline{MN}

MN = _____

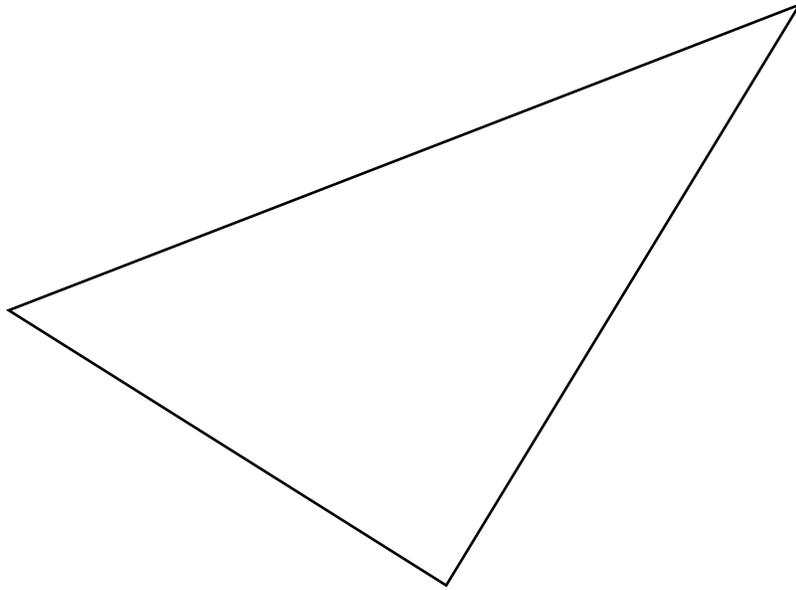
f) Calculate the slopes of sides \overline{MN} and \overline{BC} .

slope \overline{MN} =

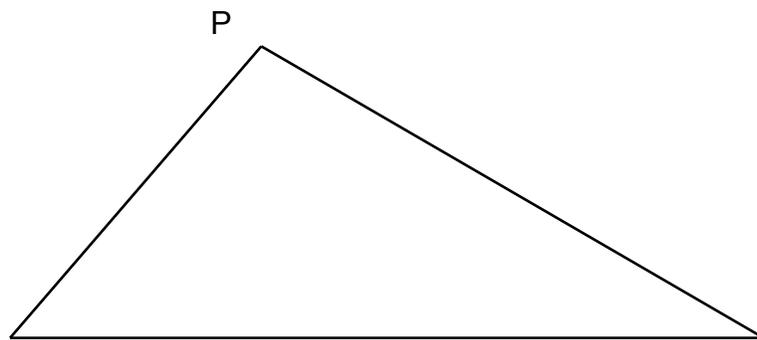
slope \overline{BC} =

5.

a) Construct three median for the triangle below.



b) Construct the altitude of the triangle below.



6. Triangle ABC has the following angles: $m\angle A = 64^\circ$, $m\angle B = 51^\circ$

a) find the measure of the third angle.

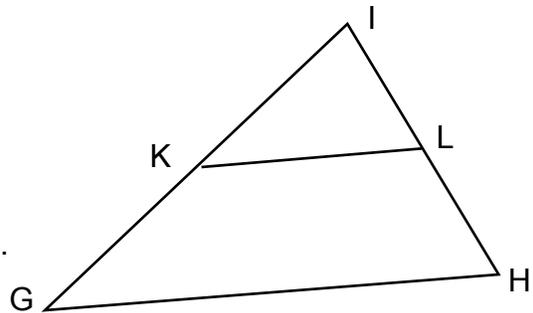
b) list the sides in order from smallest to largest.

7. Two sides of triangle DEF measure 11cm and 18cm

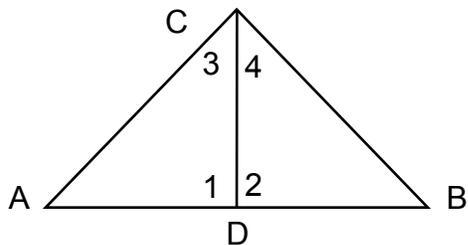
a) The third side must be larger than...

b) The third side must be less than...

8. In the triangle at right K and L are midpoints.
 $GH = 24$ and $KL = 3x - 9$. Find the value of x .



9. Complete the proof below:



_____ is an altitude

_____ and _____
 are right angles

Given

Def altitude

Def. _____