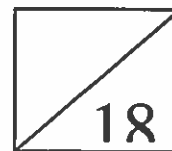


Name \_\_\_\_\_ Date \_\_\_\_\_ Score \_\_\_\_\_



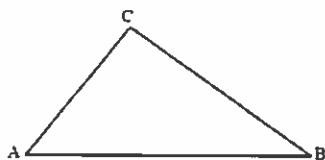
## Geometry Midterm Review

- 1) Use your book to define: Altitude of a triangle: \_\_\_\_\_

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- 2) Draw the altitude  $\overline{CD}$  on the following triangle.



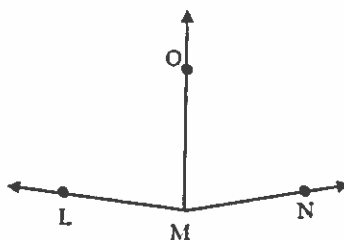
- 3) Use your book to define: Circle: \_\_\_\_\_

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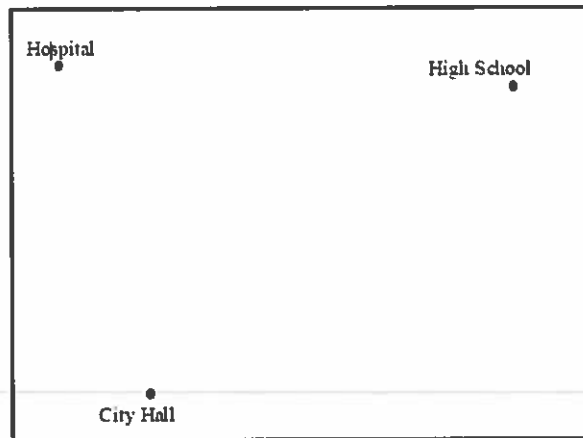
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- 4) Explain the difference between incenter and circumcenter figures.

- 5) In the figure below,  $\overline{MO}$  bisects  $\angle LMN$ ,  $m\angle LMO = 6x - 40$ , and  $m\angle NMO = 4x + 60$ . Solve for  $x$  and find  $m\angle LMN$ .



- 6) A diagram of Rockville is shown below. The people of Rockville want a new bus station built equidistant from the hospital, the city hall, and the high school. Write out directions of how you would construct the point of location of the new bus station.

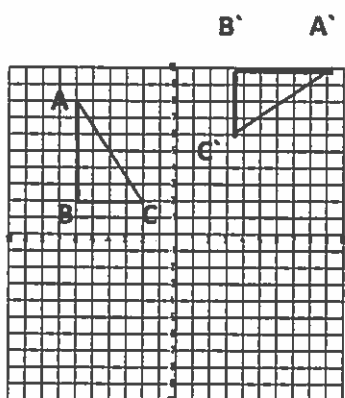


- 7) Look at the diagram below. The length of  $\overline{AB}$  is three times the length of  $\overline{BC}$ ;  $AC = 36$ . Solve for X.

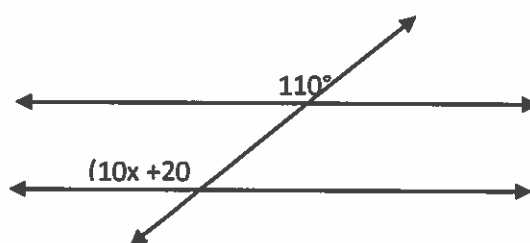


- 8) Translate the point  $(3, -8)$  using the rule  $(x, y) \rightarrow (x + 2, y - 4)$ .
- 9) Rotate the point  $(-5, 9)$   $90^\circ$  counter-clockwise around the origin.
- 10) Reflect the point  $(8, -7)$  over the line  $y = x$ .

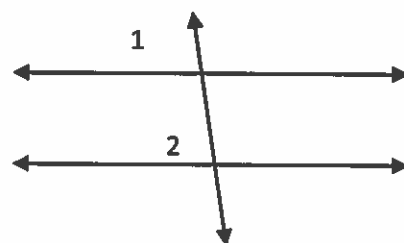
11) Describe the series of transformations that were applied to triangle ABC.



12) Find the value of  $x$ .



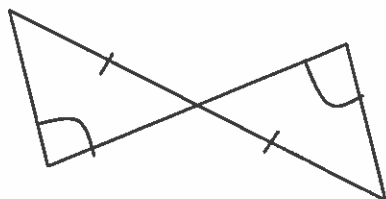
12) Identify the angles and their relationship *if* the lines are parallel.



13) In the previous question, which would you use to show the lines are parallel?

- a. Corresponding Angles Postulate
- b. Alternate Exterior Angles Theorem
- c. Corresponding Angles Converse
- d. Alternate Exterior Angles Converse

14) How are the triangles congruent?



- a) ASA
- b) AAS
- c) SAS
- d) CPCTC

H

