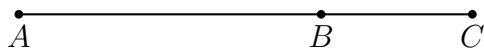


**1-4HW-Segment-addition**

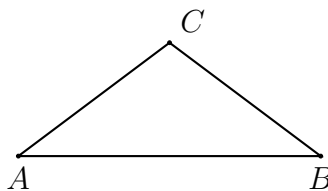
1. I have a compass, ruler, protractor, notebook, and folder (circle one). Yes      No
2. Use each term according to its geometric meaning: “sketch”, “draw”, “construct”.
  - (a) \_\_\_\_\_ is to make a freehand diagram showing important features.
  - (b) \_\_\_\_\_ is to depict with accurate measures using ruler, protractor, and compass.
  - (c) \_\_\_\_\_ is a formal, logical process to create geometric figures using only a straightedge and compass.
3. Two or more line segments of equal measure are \_\_\_\_\_.
4. Given  $\overline{ABC}$ ,  $AB = 10$ , and  $BC = 4$ .

(a) Find  $AC$ .



(b) The postulate used in this problem is the \_\_\_\_\_.

5. Given  $\triangle ABC$  with  $\overline{AC} \cong \overline{BC}$ . On the diagram mark the congruent line segments with tick marks.



6. Given line segment  $\overline{AB}$  with midpoint  $M$ , that is,  $\overline{AM} \cong \overline{BM}$ .  $AM = 2$  cm. Find the length of  $\overline{AB}$ .



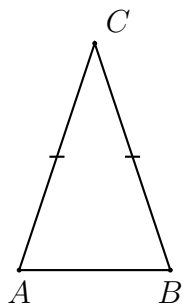
7. Points that are all located on the same line are \_\_\_\_\_.

8. Given the points  $X$  and  $Y$ , draw  $\overrightarrow{YX}$ .

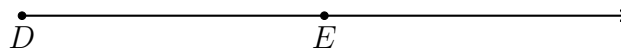
$\dot{X}$

$\dot{Y}$

9. Given  $\triangle ABC$  write down two congruent line segments using proper notation.



10. Given  $\overrightarrow{DE}$ , construct circle  $E$  with radius  $DE$ .



Spicy: Complete the construction of an equilateral triangle with one side  $\overline{DE}$ .