

Quiz 1 Plane Geometry

Sections 1.1 – 1.4

Instructions: Write the correct answer in the blank.

line ledge 1) Two flat surfaces intersect to form a(n) _____ ?

plane 2) A flat surface is a(n) _____ ?

point 3) Two lines intersect to form a(n) _____ ?

Straight line 4) Two points determine a(n) _____ ?

bisects or divides into 2 equal parts 5) A midpoint _____ ? a line segment.

coincide 6) Two line segments are equal when their endpoints can be made to _____ ?

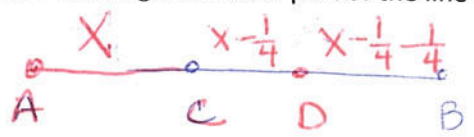
a straight line 7) The shortest distance between two points is _____ ?

> 8) If $a > b$ and $b > c$, then a _____ ? c

the sum of all its parts 9) The whole is equal to _____ ?

greater than 10) The whole is _____ ? any of its parts.

Bonus: A $6\frac{3}{4}$ inch line segment into three parts so that each part is $\frac{1}{4}$ inch shorter than the one before it. What are the lengths of each part of the line segment? Show all of your work



$$\overline{AC} = 2\frac{1}{2}$$

$$\overline{CD} = 2\frac{1}{4}$$

$$\overline{DB} = 2$$

$$\begin{aligned} \overline{AC} &= X \\ \overline{CD} &= X - \frac{1}{4} \\ \overline{DB} &= X - \frac{1}{4} - \frac{1}{4} \\ &= X - \frac{1}{2} \end{aligned}$$

$$\begin{aligned} 6\frac{3}{4} &= X + X - \frac{1}{4} + X - \frac{1}{2} \\ &= 3X - \frac{3}{4} \end{aligned}$$

$$\begin{aligned} 6\frac{3}{4} &= 3X - \frac{3}{4} \\ +\frac{3}{4} & \quad +\frac{3}{4} \\ \hline 7\frac{1}{2} &= 3X \\ \frac{7\frac{1}{2}}{3} &= \frac{3X}{3} \\ 2\frac{1}{2} &= X \end{aligned}$$