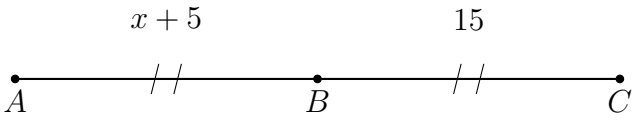
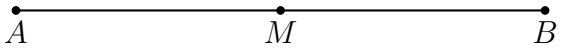
1.4 Classwork: Midpoints and bisectors

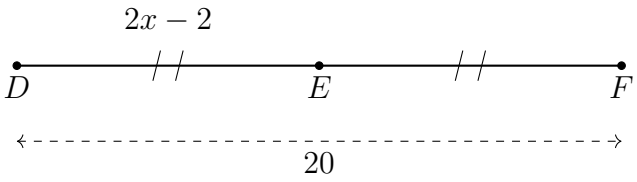
1. Point B is the midpoint of $\overline{AC}$, with $AB = x + 5$, $BC = 15$. First write an equation representing the situation, find x, then check it.



2. Given M is the midpoint of $\overline{AB}$, $AM = 5x + 2$, $MB = 22$.
   (a) Mark the diagram with the values and tick marks
   (b) Write an equation and solve for x
   (c) Check your result



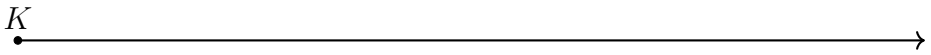
3. Point E bisects $\overline{DEF}$ and $DE = 2x - 2$, $DF = 20$. Find x. (show check)



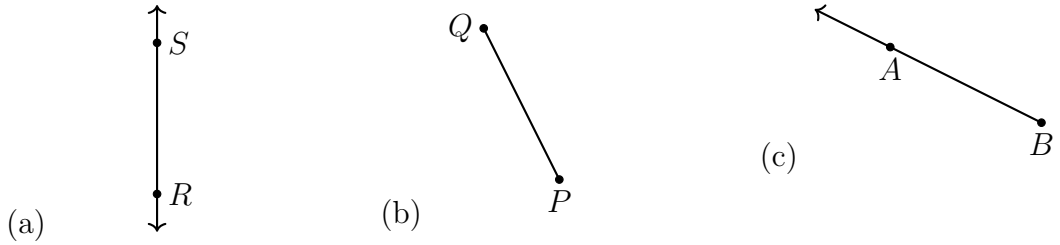
4. Two line segments or angles of equal measure are _____.

5. Points on the same plane are _____.

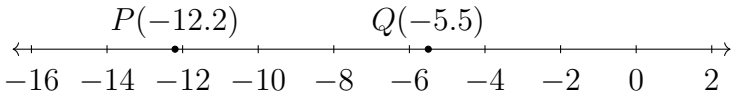
6. Mark and label point L on the ray exactly 8 centimeters from endpoint K. (measure it)



7. Name each object using symbolic notation.



8. Two points $P(-12.2)$, $Q(-5.5)$ are shown on the number line. Find PQ.



9. Assume that Dr. Huson's rides to school straight north from 80th Street to 164th Street.

   (a) How many blocks is his morning commute?

   (b) On what street is Dr. Huson's half way each morning?

   (c) In the afternoon return commute, what street is half way?