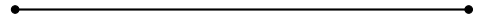


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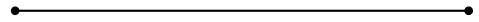
Name:

**5.7 Do Now: Modeling a line segment with algebra****Do Not Solve!****Label the drawing completely and write an equation in terms of  $x$  modeling the situation.**

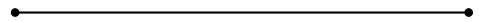
1. Given  $\overline{ABC}$ , with  $AB = x - 1$ ,  $BC = 3x + 4$ , and  $AC = 19$ . Find  $AB$ .



2. Given that  $O$  bisects  $\overline{NP}$ .  $NO = 3x$ ,  $OP = 4x - 7$ . Find  $x$ .



3. The points  $R$ ,  $S$ , and  $T$  are collinear, with  $RS = 3x - 2$  and  $ST = 11$ . If  $RT = 5x + 1$ , find  $RT$ .



4. The point  $K$  is the midpoint of  $\overline{JL}$ ,  $JK = 3x + 8$ , and  $JL = 8x + 36$ . Find  $JK$ .

