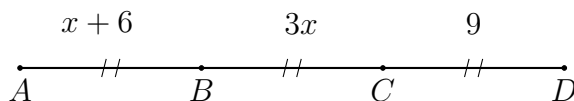


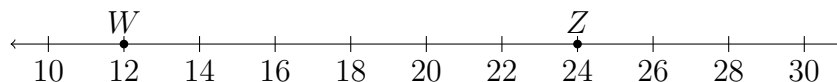
1.4 Extension: Trisecting a line segment

1. Points B and C trisect segment \overline{AD} with segment lengths as shown.

Find x .

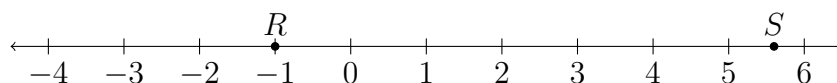


2. Given \overleftrightarrow{WZ} as shown on the number line.



Mark and label two points X and Y that trisect \overline{WZ} .

3. Given \overleftrightarrow{RS} as shown on the number line, with $R = -1.0$ and $S = 5.6$.

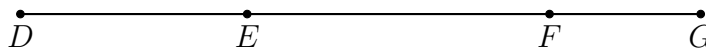


(a) What is the exact distance on the number line between the points R and S ?

(b) The points T and U trisect \overline{RS} . Find the values of T and U , and mark and label them on the number line \overleftrightarrow{RS} .

4. Given \overline{DEFG} , $DE = 3\frac{1}{3}$, $EF = 4\frac{2}{9}$, and $FG = 2\frac{4}{9}$. (diagram not to scale)

Find DG .



5. Solve for x . (use fractions, not decimals. Show the check.)

(a) $\frac{1}{2}(3x - 1) = 2\frac{1}{2}$

(b) $\frac{2}{5}(10x + 5) = 10$

6. Find all values of x that satisfy each equation. (show the check)

(a) $|2x + 3| = 7$

(b) $|x| - 5 = 15$