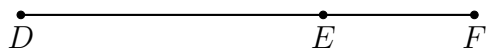


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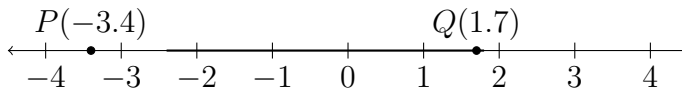
1.7 Extension Quiz: Absolute value, trisection, algebra

All algebraic solutions require a check for full credit.

1. Given \overline{DEF} , $DE = 3\frac{2}{3}$, and $EF = 1\frac{2}{3}$. Find DF .



2. Given $P(-3.4)$ and $Q(1.7)$, as shown on the number line. Find the length of the line segment \overline{PQ} .



3. Given $x = -3$ simplify each expression.

(a) $|x - 2| =$

(c) $|x - 1| + |x| =$

(b) $|-1 - x| =$

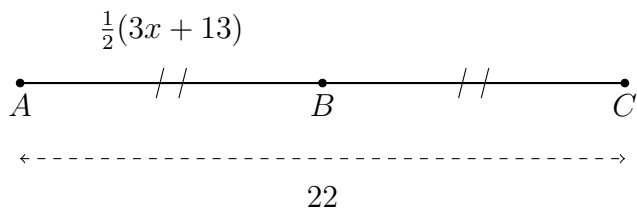
(d) $3 \times |-x| + x =$

4. Find all values of x satisfying the equation. (show the two cases for each problem)

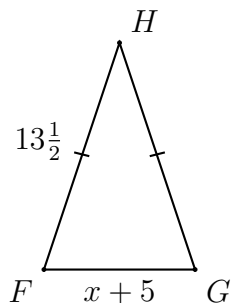
(a) $|2x| = 8$

(b) $|x - 2| + 2 = 7$

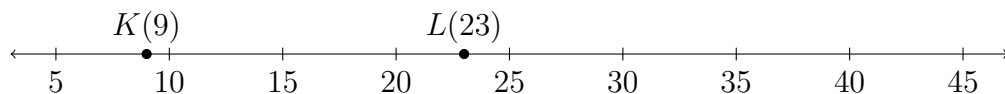
5. The segment \overline{AC} is bisected by point B , $AB = \frac{1}{2}(3x + 13)$ and $AC = 22$. Find x .



6. The perimeter of the isosceles $\triangle FGH$ is 35 with $\overline{FH} \cong \overline{GH}$. If $FG = x + 5$ and $FH = 13\frac{1}{2}$, find x .

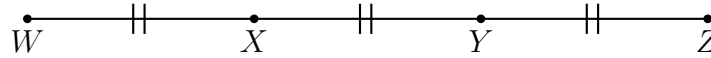


7. Given points $K(9)$ and $L(23)$, find the value of M such that L is the bisector of \overline{KM} . Mark M and label it with its value on the number line.

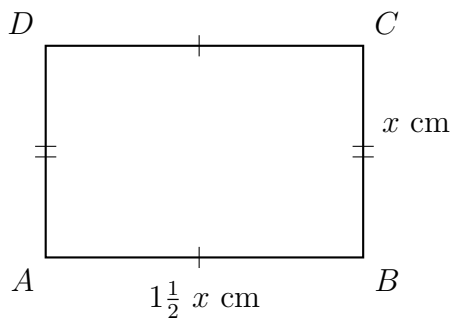


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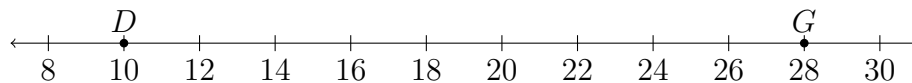
8. The points X and Y trisect the line segment \overline{WZ} , as shown below. If $WY = 14$, find WZ .



9. The perimeter of rectangle $ABCD$ is 70 centimeters and its length is one and a half times its width. Find the rectangle's dimensions.

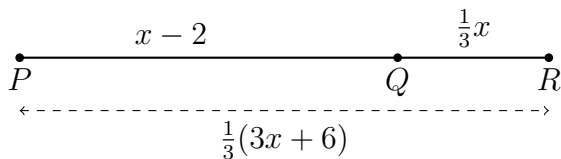


10. Given \overleftrightarrow{DG} as shown on the number line, with $D = 10$ and $G = 28$.

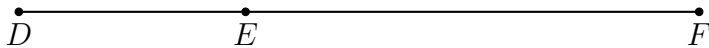


Points E and F trisect \overleftrightarrow{DG} . Find the values of E and F and mark and label them on the number line \overleftrightarrow{DG} .

11. Given \overline{PQR} , $PQ = x - 2$, $QR = \frac{1}{3}x$, $PR = \frac{1}{3}(3x + 6)$. Find x .



12. Given \overline{DEF} , $DF = 75$ and \overline{DE} is half the length of \overline{EF} . Find DE .



Academic integrity pledge

This assignment must be completed in one sitting. Use your notes and a calculator.

I have not received any human help on this assignment.

Signed: _____

Date, start time - end time