

Example 6

Find the Total Length

Check

Find the measure of \overline{AC} if B is the midpoint of \overline{AC} . Round your answer to the nearest tenth, if necessary.

Handwritten work:

$$\begin{aligned} -3 &= \frac{5m}{5} \\ -0.6 &= m \end{aligned}$$

Diagram of segment \overline{AC} with midpoint B :

$AB = 3m + 4$, $BC = 8m + 7$

Substitution and calculation:

$$\begin{aligned} 3(-0.6) + 4 &= 8(-0.6) + 7 \\ 2.2 + 2.2 &= 4.4 \end{aligned}$$

Final calculation:

$$\begin{aligned} 3m + 4 &= 8m + 7 \\ -3m &= 3 \\ -7 &= 5m \\ -7 &= 5m \end{aligned}$$



Students, draw anywhere on this slide!

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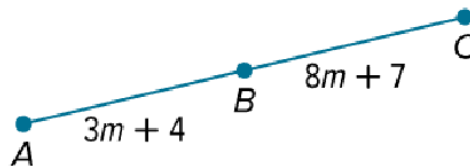


Example 6

Find the Total Length

Check

Find the measure of \overline{AC} if B is the midpoint of \overline{AC} . Round your answer to the nearest tenth, if necessary.



4.4

Exit Ticket

Use the number line to tell whether each statement is *true* or *false*.

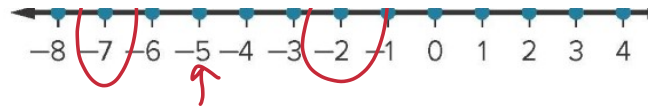
1. D is the midpoint of \overline{BG} .



$$- \frac{7 + -2}{2}$$

$$- \frac{9}{2} = -4.5$$

False



Students, draw anywhere on this slide!

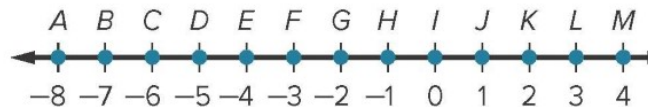
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Exit Ticket

Use the number line to tell whether each statement is *true* or *false*.

1. D is the midpoint of \overline{BG} .



Students, select an option!

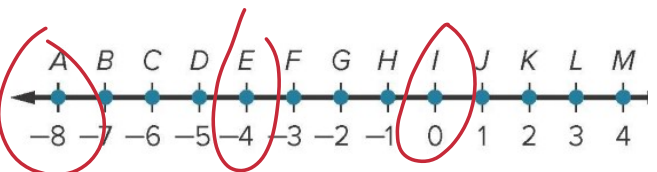
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Exit Ticket

Use the number line to tell whether each statement is *true* or *false*.

2. E is the midpoint of \overline{AI} .



$$- \frac{8 + 0}{2} = -4$$

yes 😊



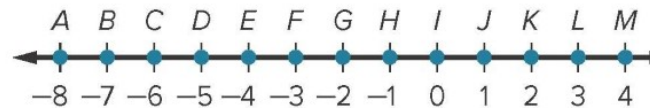
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Exit Ticket

Use the number line to tell whether each statement is *true* or *false*.



2. E is the midpoint of \overline{AI} .



Students, select an option!

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Exit Ticket

Find the coordinates of M , the midpoint of \overline{AB} , for each pair of points.

3. $A(1, 2)$ and $B(-3, 6)$

$(-1, 4)$

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

$$\frac{2 + 6}{2} = 4$$

4. $A(6, -5)$ and $B(8, -2)$

$(7, -3.5)$

$$\frac{6 + 8}{2} = \frac{14}{2} = 7$$

$$\frac{-5 + (-2)}{2} = \frac{-7}{2} = -3.5$$



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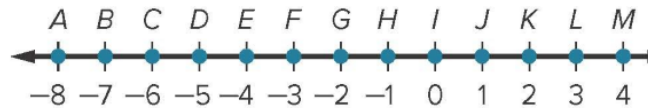


Exit Ticket

Use the number line to tell whether each statement is *true* or *false*.

1. D is the midpoint of \overline{BG} . **false**

2. E is the midpoint of \overline{AI} . **true**



Find the coordinates of M , the midpoint of \overline{AB} , for each pair of points.

3. $A(1, 2)$ and $B(-3, 6)$ **$(-1, 4)$**

4. $A(6, -5)$ and $B(8, -2)$ **$(7, -3\frac{1}{2})$**