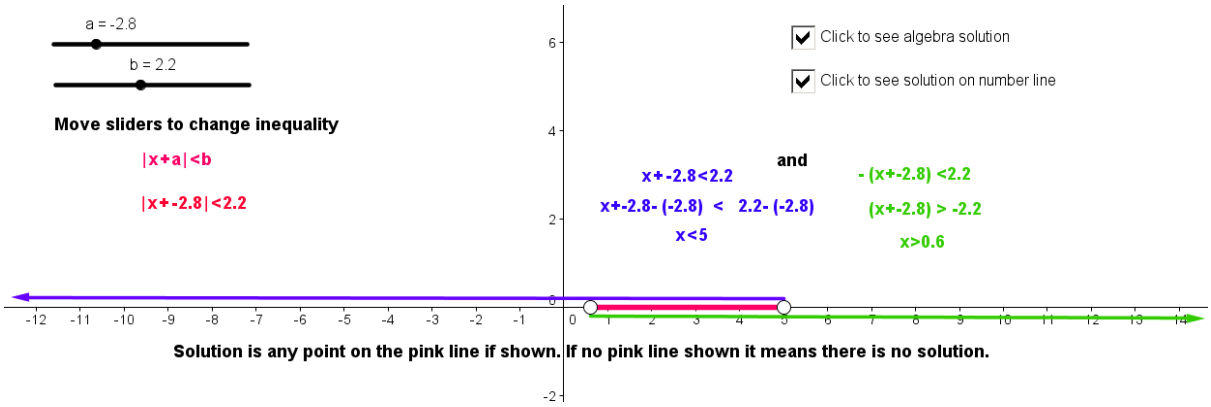
Student Activity: To investigate |x-a|<b

Use in connection with the interactive file, 'Absolute Value Less than', on the student's CD.



1.

a. Given |x-2|<4, $x \in \mathbb{R}$, write this as 2 possible inequalities.

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b. Solve these inequalities.

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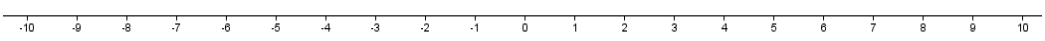
c. Show the solution which satisfies|x-2|<4 on the number line. Use different coloured pens and explain what each colour means.



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d. Check your results using the interactive file.

2.

a. Given |x+2|<5, $x \in \mathbb{R}$, write this as 2 possible inequalities.

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b. Solve these inequalities.

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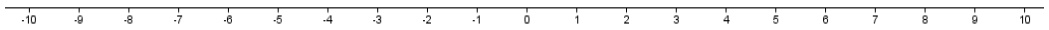
c. Show the solution which satisfies $|x+2|<5$ on the number line. Use different coloured pens and explain what each colour means.



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d. Check your results using the interactive file.

3.

a. Given $|x-1.8|<0$, $x \in \mathbb{R}$, write this as 2 possible inequalities.

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b. Solve these inequalities.

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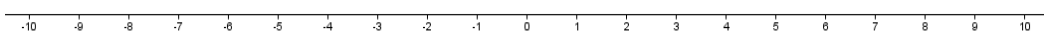
c. Show the solution which satisfies $|x-1.8|<0$ on the number line. Use different coloured pens and explain what each colour means.



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d. Check your results using the interactive file.