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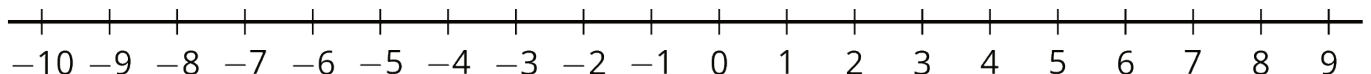
## Unit 6, Lesson 14: Finding Solutions to Inequalities in Context

1. The solution to  $5 - 3x > 35$  is either  $x > -10$  or  $-10 > x$ . Which solution is correct? Explain how you know.
2. The school band director determined from past experience that if they charge  $t$  dollars for a ticket to the concert, they can expect attendance of  $1000 - 50t$ . The director used this model to figure out that the ticket price needs to be \$8 or greater in order for at least 600 to attend. Do you agree with this claim? Why or why not?
3. Which inequality is true when the value of  $x$  is  $-3$ ?
  - A.  $-x - 6 < -3.5$
  - B.  $-x - 6 > 3.5$
  - C.  $-x - 6 > -3.5$
  - D.  $x - 6 > -3.5$

(from Unit 6, Lesson 13)

4. Draw the solution set for each of the following inequalities.

a.  $x \leq 5$

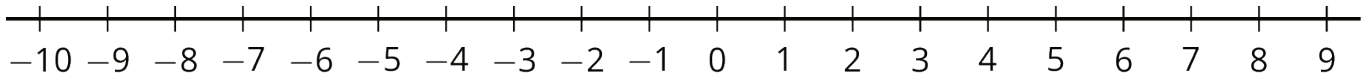


b.  $x < \frac{5}{2}$

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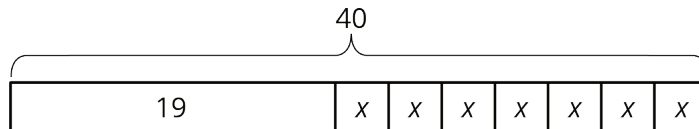
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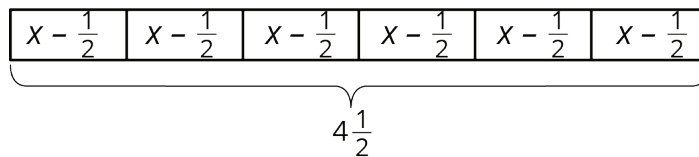
(from Unit 6, Lesson 13)

5. Write three different equations that match the tape diagram.



(from Unit 6, Lesson 3)

6. A baker wants to reduce the amount of sugar in his cake recipes. He decides to reduce the amount used in 1 cake by  $\frac{1}{2}$  cup. He then uses  $4\frac{1}{2}$  cups of sugar to bake 6 cakes.



a. Describe how the tape diagram represents the story.

b. How much sugar was originally in each cake recipe?

(from Unit 6, Lesson 2)

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7. One year ago, Clare was 4 feet 6 inches tall. Now Clare is 4 feet 10 inches tall. By what percentage did Clare's height increase in the last year?

(from Unit 4, Lesson 12)