

Lesson 14 Practice Problems

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. $-x - 6 > 3.5$

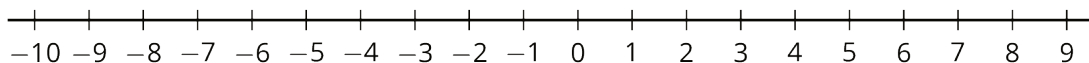
C. $-x - 6 > -3.5$

D. $x - 6 > -3.5$

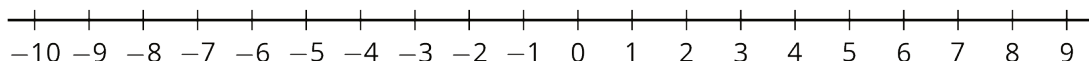
(From Unit 6, Lesson 13.)

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

a. $x \leq 5$

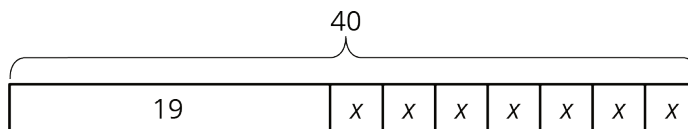


b. $x < \frac{5}{2}$



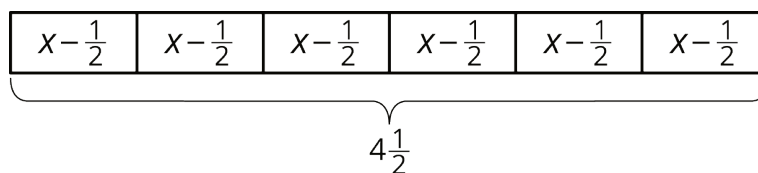
(From Unit 6, Lesson 13.)

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.)

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.)