

ACE Assignment Guide for Problem 2.3



Core 8–11

Other 12, 44–57, 59, 60, and unassigned choices from previous problems

Adapted For suggestions about adapting ACE exercises, see the CMP *Special Needs Handbook*.

Connecting to Prior Units 15, 22: *Say It With Symbols*; 16: *Accentuate the Negative*; 17: *Moving Straight Ahead*; 19–21: *Frogs, Fleas, and Painted Cubes*

Answers to Problem 2.3

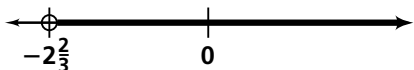
A. 1. $x < 10$



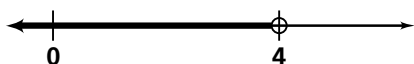
2. $6.5 < x$



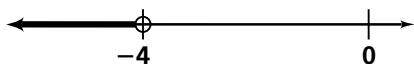
3. $x > -2\frac{2}{3}$



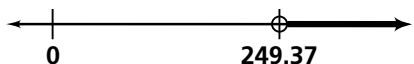
4. $x < 4$



5. $-4 > x$



6. approx. $249.37 < d$



- B. 1. Luisa's solution for $2x - 3 = 1$ is $x = 2$. This corresponds to the x -coordinate of the point of intersection of $y = 2x - 3$ and $y = 1$.
2. Asking "For what value of x is $2x - 3 \leq 1$?" is equivalent to asking, "For what values of x are the y -values given by $y = 2x - 3$ less than the y -values given by $y = 1$?" Instead of seeking the point of intersection as in Question B. 1, we now want all those x -values that make the line $y = 2x - 3$ "lower than" the line $y = 1$. These are the x -values to the left of and including $x = 2$.
3. For what x is it true that $y = 2x - 3$ is greater than $y = 1$? $x > 2$.
4. Answers will vary. Sample answer to Question A, part (5): $y_1 = 18$, $y_2 = -4x + 2$. This is satisfied for $x < -4$, which is where the points for y_2 are higher than those for y_1 .

