David wants to buy 2 pineapples and some bananas.

- The price of 1 pineapple is $2.99.
- The price of bananas is $0.67 per pound.

David wants to spend less than $10.00. Write an inequality that represents the number of pounds of bananas, \( b \), David can buy.

On the number line below, draw a graph that represents the number of pounds of bananas David can buy.
Sample Top-Score Response:

$b < 6$

The graph should be a line segment with an open or closed circle at 0 and an open circle at 6.

Scoring Rubric:

Responses to this item will receive 0–3 points, based on the following:

3 points: The student has thorough understanding of how to solve a real-life problem involving inequalities and how to graph inequalities on a number line. This is shown by the student determining and graphing the solution.

2 points: The student has thorough understanding of how to solve a real-life problem involving inequalities and partial understanding of how to graph inequalities on a number line. This is shown by the student correctly determining the solution but having incorrect endpoint(s) on the graph.

1 point: The student has an understanding of how to solve a real-life problem but limited understanding of how to graph the solution. This is shown by the student determining the solution but making two or more errors in graphing the solution. **OR** The student has an understanding of how to graph inequalities but limited understanding of how to solve a real-life problem involving inequalities. This is shown by the student correctly graphing an incorrect solution to the real-life problem.

0 points: The student shows little or no understanding of how to solve a real-life problem involving inequalities or how to graph inequalities.

Template: Selecting points and ranges on a number line

Item Code: MAT.07.CR.1.000EE.D.165

Interaction Space Parameters:

i. Type inequality into a text box

ii. Graph the solution on a provided number line

Scoring Data:

\{b<6; The graph should be a line segment with a closed circle at 0 and an open circle at 6.\}

\{0 errors = 2 points\}

\{1 error = 1 point\}

\{2 errors = 0 points\}