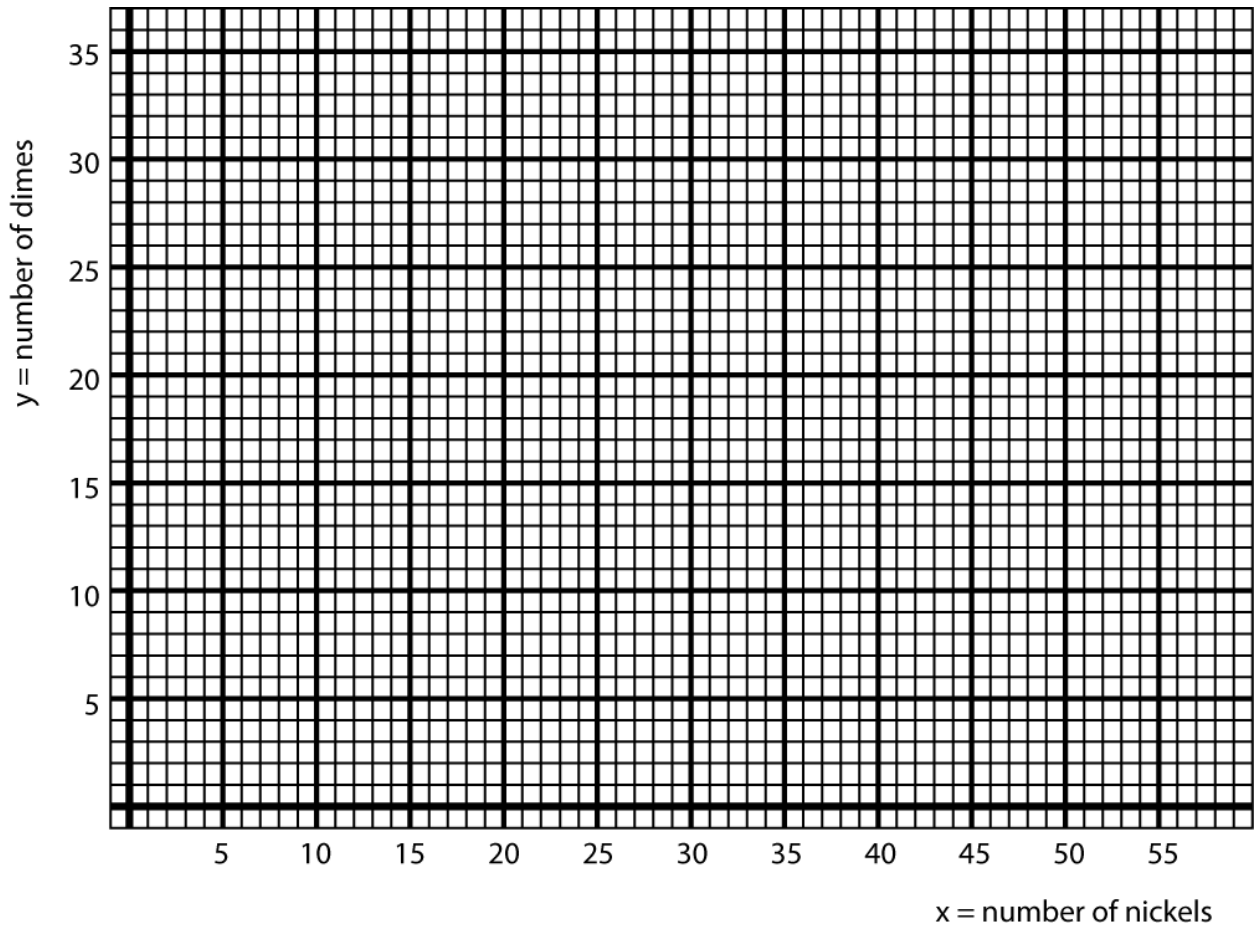


Problem Solving with Graphs

NAMES:

Tom is stacking his nickels and dimes. He has a total of 35 coins (just nickels and dimes) that make a total of \$2.90. Harriet wants to know how many of each coin he has. She decides to solve this problem graphically.

Let x represent the number of nickels and y represent the number of dimes Tom has. Form two equations and then graph them on the xy -plane below. Record your equations here and answer the questions that follow.



Questions follow on the next page.

1. For the line $x + y = 35$, locate the x -intercept. Circle it on the graph and label it with ordered pair notation. What is the meaning of this point?

2. From your graph, locate the point of intersection for the two lines you graphed. So, how many nickels and dimes does Tom have?

3. Harriet notices that the point $(30, 14)$ is on the second line that you drew. Locate it and circle it on the graph. What does this point mean? Why is it **not** a solution to the question?