CSS: Demonstrate my understanding that solutions to a system of two linear in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations.

Name: $\qquad$ Date: $\qquad$ Per.:
LT Pre Test
Directions: Show what you know about the following topic by completing the problems below. Make sure to show all work.

1. Describe what a linear equation is.
2. Locate the point of intersection on the graph below,

3. Using the graph above. Describe how you can estimate the solution to the system of equations.

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4. Solve the two systems by graphing. Then describe why that is the solution of the systems of linear equations.


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5. Solve the system of linear equations algebraically.

$$
\begin{gathered}
x+y=27 \\
y=x+3
\end{gathered}
$$

6. You buy $x$ bottles of face paint and $y$ brushes at two stores. The amounts you spend are represented by $10 x+7.5 y=42.5$ and $8 x+6 y=34$. How many bottles of face paint and brushes did you buy?

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