Practice Questions

1. Express each equation in the form $y = mx + b$.
   a) $x + y - 4 = 0$
   b) $x - y + 2 = 0$
   c) $x + 4y + 3 = 0$
   d) $x - 3y - 8 = 0$
   e) $2x + 5y + 10 = 0$
   f) $3x - 2y + 6 = 0$

2. For each linear relation in question 1,
   - identify the slope and the $y$-intercept
   - use this information to graph the line
4. The Everything for Events Rental Company charges according to the equation \(25n - C + 100 = 0\) to rent tables for events, where \(C\) represents the cost, in dollars, which depends on \(n\), the number of tables that are rented.

a) Express the equation in slope-
intercept form: \(C = mn + b\).

b) Identify the fixed and variable costs.

c) Illustrate the relation graphically
using pencil and paper or a graphing
calculator.

d) What is the rental cost if 200 tables
are rented for a charity event?

8. The steps show how to convert an
equation in standard form to slope-
intercept form. Explain each step.

<table>
<thead>
<tr>
<th>Step</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>(3x + 2y + 5 = 0)</td>
<td>Start with the equation in standard form.</td>
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\[
\begin{align*}
2y &= -3x - 5 \\
2y &= 2x - 5 \\
y &= -\frac{3}{2}x - \frac{5}{2}
\end{align*}
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