Preparing for Factoring Trinomials by Decomposition
\#1.

$$
\begin{aligned}
& 4 x^{2}+9 x+5 \\
& \begin{array}{ll}
1 \\
\text { (a) } & \text { (c) }
\end{array}
\end{aligned}
$$

Use the trinomial above to complete the following table. The first, two rows have been done as an example.

| $9 x-t e r m$ <br> decomposed | Coefficients of <br> Decomposition | Product, ac | Are the <br> coefficients both <br> factors of $a c ?$ |
| :---: | :---: | :---: | :---: |
| $1 x+8 x$ | 1,8 | $4(5)=20$ | Yes; 1 and 8 <br> are both factors <br> of 20 |
| $2 x+7 x$ | 2,7 | 20 | No |
|  |  | 20 |  |
|  |  | 20 |  |
|  |  | 20 |  |

\#2.


Use the trinomial above to complete the following table.

| 12x-term <br> decomposed | Coefficients of <br> Decomposition | Product, ac | Are the <br> coefficients both <br> factors of ac? |
| :--- | :--- | :--- | :--- |
|  |  | $4(5)=20$ |  |
|  |  | 20 |  |
|  |  | 20 |  |
|  |  | 20 |  |
|  |  |  |  |

