7-6 Mathematical Literacy and Vocabulary

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Factoring $ax^2 + bx + c$

Austin is trying to factor $x^2 + 5x + 4$. He wrote these steps to solve the problem on note cards, but they got mixed up.

Use the note cards to complete the steps below.

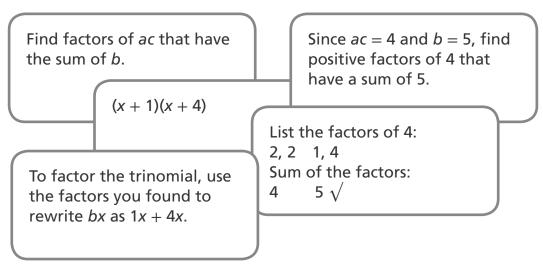
- 1. First, _____
- 2. Second, ____
- 3. Third, _____
- **4.** Then, _____
- 5. Finally, _____

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Use the note cards to complete the steps below.

- 1. First, find factors of ac that have the sum of b.
- 2. Second, since ac = 4 and b = 5, find positive factors of 4 that have a sum of 5.
- 3. Third, list the factors of 4: 2, 2 1, 4 Sum of the factors: 4 5 $\sqrt{}$
- 4. Then, to factor the trinomial, use the factors you found to rewrite bx as 1x + 4x.
- 5. Finally, (x + 1)(x + 4)