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| Factoring by Grouping | When a polynomial contains four or more terms, we may be able to factor by grouping.Example: $6x^{2}+24x+5x+20$ |
| Guided Practice | 1. Factor $5y^{2}-6y+10y-12$ by grouping, then check by distributing.
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| Factoring Trinomials when a>1 | First, determine if there is a GCF. If so, factor it out.If there are no common factors or if the leading coefficient is still greater than 1 after the GCF has been factored out, use the following steps.1. Multiply *a* and *c*.
2. List all the possible factors for this number (include positive and negative).
3. Find the set of factors that add to equal *b*.
4. Rewrite *bx* as the sum of two terms, using the factors found in the previous step.
5. Factor the new polynomial by grouping.
6. Check your answer by distributing.

Note: not all polynomials can be factored. |
| Guided Practice | 1. Factor $6x^{2}-7x-5$, then check by distributing.
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|  | 1. Factor $36x^{2}-54x+8$, then check by distributing.
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| 1. The polynomial $10a^{2}+87a-27$ represents the area in square yards of a rectangular playground. Factor the polynomial to determine the expressions that represent the length and width of the playground.
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