Lesson 1.3.2: Factoring General Trinomials

Types of General Trinomials:

1. Trinomial in the form of ax^2+bx+c, where $a=1$
2. Trinomial in the form of ax^2+bx+c, where $a\neq 1$

How to Factor General Trinomials:

1. Factor out the greatest common monomial of all terms of the given expression.
2. Multiply the first term and the last term of the trinomial.
3. Get the possible factors of the product of the first term and the last term in such a way that their sum is equal to the second term of the trinomial.
4. Replace the middle term by the two factors.
5. Apply factoring by grouping.

Practice Exercises 1.3.2

Factor the following polynomials completely.

1. $6x^2+x-2$
2. $3x^2+x-2$
3. $2a^2-a-6$
4. $4m^2+3mn-n^2$
5. $3a^2+ab-4b^2$
6. $4a^2-6ab-4b^2$
7. $6m^3-15m^2-9m$
8. $3x^2-8xy-3y^2$
9. $9c^2d-15cd^2-6d^3$
10. x^4-8x^2+15

Activity 1.3.2

Factor the following polynomials completely.

1. $3x^2+7x+4$
2. $2x^2+3x-9$
3. $6a^2+11a+3$
4. $4m^2-5m-6$
5. $3a^2-a-4$
6. $4m^2-11mn+6n^2$
7. $3a^2-7ab-6b^2$
8. $4c^2-19cd-5d^2$
9. $10x^2-27xy+18y^2$
10. $6m^2-7mn-3n^2$

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