

**Objective:** • *factor polynomials*

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Factor completely. If the polynomial cannot be factored, write *simplified*.

|                    |                        |                      |
|--------------------|------------------------|----------------------|
| (1) $8x - 24$      | (2) $xy - 17y$         | (3) $x^2 - 169$      |
| (4) $x^2 - y^2$    | (5) $x^2 + y^2$        | (6) $3x^3 - 3x$      |
| (7) $9x^2 - 36y^2$ | (8) $2x^3 - 4x^2 - 6x$ | (9) $5x^2 - 13x + 6$ |

|                     |                           |                   |
|---------------------|---------------------------|-------------------|
| (10) $x^2 - 6x + 2$ | (11) $4a^2 + 12ab + 9b^2$ | (12) $36w^2 - 16$ |
|---------------------|---------------------------|-------------------|

Factor completely. If the polynomial cannot be factored, write *simplified*.

|                        |                         |                            |
|------------------------|-------------------------|----------------------------|
| (13) $6 - 5x + x^2$    | (14) $40 - 76x + 24x^2$ | (15) $2x^2 + 4x - 1$       |
| (16) $2x^2 + 28x - 30$ | (17) $6x^2 + 7x - 3$    | (18) $18x^2 - 31xy + 6y^2$ |