

# Practice 12-2

## Simplifying Rational Expressions

Simplify each expression.

1.  $\frac{6x^4}{18x^2}$

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2.  $\frac{15a^2}{25a^4}$

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3.  $\frac{32h^3}{48h^2}$

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4.  $\frac{12n^4}{21n^6}$

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5.  $\frac{3x - 6}{6}$

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6.  $\frac{x^2 - 2x}{x}$

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7.  $\frac{4t^2 - 2t}{2t}$

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8.  $\frac{a^3 - 2a^2}{2a^2 - 4a}$

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9.  $\frac{21x^2y}{14xy^2}$

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10.  $\frac{32x^3y^2}{24xy^4}$

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11.  $\frac{x^2 + 3x}{3x + 9}$

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12.  $\frac{x^2 - 5x}{5x - 25}$

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13.  $\frac{x^2 + 13x + 12}{x^2 - 144}$

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14.  $\frac{x^2 - 9}{x^3 - 3x^2}$

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15.  $\frac{x^3 + x^2}{x + 1}$

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16.  $\frac{3x - 2y}{2y - 3x}$

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17.  $\frac{x^2 + x - 6}{x^2 - x - 2}$

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18.  $\frac{x^2 + 3x + 2}{x^3 + x^2}$

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19.  $\frac{2x^2 - 8}{x^2 - 3x + 2}$

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20.  $\frac{2x^2 - 5x + 3}{x^2 - 1}$

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21.  $\frac{3x + 3y}{x^2 + xy}$

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22.  $\frac{10 + 3x - x^2}{x^2 - 4x - 5}$

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23.  $\frac{9 - x^2}{x^2 + x - 12}$

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24.  $\frac{x^2 + 2x - 15}{x^2 - 7x + 12}$

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25.  $\frac{x^2 + 7x - 8}{x^2 + 6x - 7}$

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26.  $\frac{x^2 + 3x - 10}{25 - x^2}$

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