

Key Points

Section 2.4 Algebraic Fractions

- Canceling is really dividing a common factor from the numerator and denominator
- Canceling expressions is valid only when the factor being canceled is not zero
- Rules for operations on algebraic Fractions

Discussion

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Fractions

What are some things that you know about fractions?

Examples

Section 2.4 Algebraic Fractions

When we are dealing with algebraic fractions, the easiest way to approach them is to first see if anything can factor out, if something factors out it will make the fraction easier to work with.

$$\frac{10x+10}{5}$$

Examples

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$$\frac{4m-8n}{-6m-3n}$$

Examples

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$$\frac{6+x}{2x+12}$$

Examples

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$$\frac{2}{x+y} \bullet \frac{x^2y}{5}$$

Examples

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$$\frac{t^2 - 4t + 3}{t^2 - 4} \cdot \frac{t - 2}{t - 3}$$

Examples

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$$\frac{(x^2 - x - 12)/4x}{(x^2 + 2x - 3)/4x - 4}$$

Practice

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Fractions

Simplify

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

Practice

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Simplify

$$\frac{10m+20n}{-15m-5n}$$

Practice

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Simplify

$$\frac{5a^3+10a}{10a^2+20}$$

Practice

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Factor and simplify $\frac{3-x}{2x-6}$

Practice

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Factor and simplify $\frac{2k^2-8}{2-k}$

Practice

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Express as a single fraction

$$\frac{j}{7} + \frac{2j}{7}$$

Practice

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Express as a sum of two algebraic fractions

$$\frac{5x+y}{6}$$

Practice

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Simplify the expression

$$\frac{c}{25} + \frac{h}{30}$$

Practice

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Express as a single fraction.

$$\frac{3}{p} + \frac{2}{p+2}$$

Practice

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Express as a single fraction

$$\frac{t}{s+t} - \frac{s}{s-t}$$

Practice

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Express as a single fraction

$$\frac{3}{v+w} * \frac{vw^2}{7}$$

$$\frac{3/(v+w)}{vw^2/7}$$

Practice

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Express as a single fraction

$$\frac{z^2+z-6}{z^2-1} * \frac{z-1}{z-2}$$

Practice

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Express as a single fraction

$$\frac{(r^2 - 25)/5r}{(r^2 - 10r + 25)/(5r - 25)}$$

Homework

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Pages 53-54

1-11 odd, 14-24 even, 25-35, 51-55

