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| **Pixel Picture** | **Simplifying Algebraic Fractions** |

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|  |  |  |  |  |  |  |  |  |
|  | $$\frac{2xy}{y}$$ | $$\frac{6x^{2}}{3x}$$ | $$\frac{10xyz}{5yz}$$ | $$\frac{4x}{2}$$ | $$\frac{xy}{2y}$$ | $$\frac{4x^{2}}{xy}$$ | $$\frac{8x^{3}}{4x^{2}}$$ | $$\frac{6x^{2}y}{3xy}$$ | $$\frac{20x}{10}$$ |  |
|  | $$\frac{2x^{2}}{x}$$ | $$\frac{4xy}{2y}$$ | $$\frac{6x}{3}$$ | $$\frac{2x^{2}y^{2}}{xy^{2}}$$ | $$\frac{4x^{2}}{8x}$$ | $$\frac{12x}{3y}$$ | $$\frac{8xy^{2}}{2y^{3}}$$ | $$\frac{10xy}{5y}$$ | $$\frac{4x^{2}}{2x}$$ |  |
|  | $$\frac{8x^{2}y}{4xy}$$ | $$\frac{2xz^{2}}{z^{2}}$$ | $$\frac{4x^{3}}{2x^{2}}$$ | $$\frac{2x^{2}y^{3}}{xy^{3}}$$ | $$\frac{3x^{3}y}{6x^{2}y}$$ | $$\frac{4x^{3}y}{x^{2}y^{2}}$$ | $$\frac{20xz}{5yz}$$ | $$\frac{16x}{4y}$$ | $$\frac{6xy^{3}}{3y^{3}}$$ |  |
|  | $$\frac{2xy^{3}}{y^{3}}$$ | $$\frac{12xy}{6y}$$ | $$\frac{6x^{3}y}{3x^{2}y}$$ | $$\frac{18x^{3}}{9x^{2}}$$ | $$\frac{xyz}{2yz}$$ | $$\frac{10x^{2}}{5x}$$ | $$\frac{4xz^{2}}{2z^{2}}$$ | $$\frac{20x^{3}}{10x^{2}}$$ | $$\frac{8x}{4}$$ |  |
|  | $$\frac{10x}{5}$$ | $$\frac{4xy}{x^{2}y}$$ | $$\frac{12y}{3xy}$$ | $$\frac{4x^{2}}{x^{3}}$$ | $$\frac{40z}{10xz}$$ | $$\frac{8}{2x}$$ | $$\frac{4x}{x^{2}}$$ | $$\frac{24xy}{6x^{2}y}$$ | $$\frac{2x^{3}y}{x^{2}y}$$ |  |
|  | $$\frac{4x^{2}y^{2}}{2xy^{2}}$$ | $$\frac{16x^{2}}{8x}$$ | $$\frac{8}{2x}$$ | $$\frac{4x}{x^{2}}$$ | $$\frac{20x^{2}}{5x^{3}}$$ | $$\frac{12xy}{3x^{2}y}$$ | $$\frac{4y}{xy}$$ | $$\frac{8xz^{2}}{4z^{2}}$$ | $$\frac{6xy}{3y}$$ |  |
|  | $$\frac{y^{2}}{4y}$$ | $$\frac{xy}{4x}$$ | $$\frac{5x^{2}y}{20x^{2}}$$ | $$\frac{3xy}{12x}$$ | $$\frac{2y}{8}$$ | $$\frac{x^{2}y}{4x^{2}}$$ | $$\frac{4y^{3}}{16y^{2}}$$ | $$\frac{10y}{40}$$ | $$\frac{2xy}{8x}$$ |  |
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|  | Colour black all the algebraic fractions that simplify to $\frac{x}{2}$ |  | Colour dark blue all the algebraic fractions that simplify to $\frac{y}{4}$ |
|  | Colour light blue all the algebraic fractions that simplify to $2x$ |  | Colour brown all the algebraic fractions that simplify to $\frac{4}{x}$ |
|  | Colour red all the algebraic fractions that simplify to $\frac{4x}{y}$ |  |  |