MATH MONKS

Complex FRACTIONS Worksheet

Simplify the given fractions.

① $\frac{5-2x}{x^2+2x}$ =	⑥ $\frac{5a}{2\,(a+2)}$ =
② $\frac{xy\,(x+y)}{3y^2+5x^2}$ =	⑦ $\frac{x}{2-3x}$ =
③ $\frac{\frac{a}{b}+\frac{x}{y}}{\frac{a}{z}+\frac{x}{c}}$ =	⑧ $\frac{\frac{x+1}{3}}{\frac{2x-1}{3}}$ =
④ $\frac{\frac{1}{x}+\frac{2}{x}}{x+\frac{2}{x^2}}$ =	⑨ $\frac{1-\frac{x}{y}}{\frac{x^2}{y^2}-1}$ =
⑤ $\frac{x+\frac{2d}{3ac}}{x+\frac{3d}{2ac}}$ =	⑩ $\frac{\frac{x-3}{x^2-25}}{\frac{x^2-9}{x-5}}$ =

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Answers

① $\frac{5-2x}{x^2+2x} = \frac{5-2x}{x(x+2)}$	⑥ $\frac{5a}{2\,(a+2)} = \frac{5a}{2a+4}$
② $\frac{xy\,(x+y)}{3y^2+5x^2} = \frac{x^2y+xy^2}{3y^2+5x^2}$	⑦ $\frac{x}{2-3x} = \frac{1}{(\frac{2}{x}-3)}$
③ $\frac{\frac{a}{b}+\frac{x}{y}}{\frac{a}{z}+\frac{x}{c}} = \frac{zc(ay+bx)}{by(ac+xz)}$	⑧ $\frac{\frac{x+1}{3}}{\frac{2x-1}{3}} = \frac{x+1}{2x-1}$
④ $\frac{\frac{1}{x}+\frac{2}{x}}{x+\frac{2}{x^2}} = \frac{3x}{x^3+2}$	⑨ $\frac{1-\frac{x}{y}}{\frac{x^2}{y^2}-1} = \frac{y(y-x)}{(x+y)(x-y)}$
⑤ $\frac{x+\frac{2d}{3ac}}{x+\frac{3d}{2ac}} = \frac{1+4d}{1+9d}$	⑩ $\frac{\frac{x-3}{x^2-25}}{\frac{x^2-9}{x-5}} = \frac{1}{(x+5)(x+3)}$