

# Answers: Arithmetic on algebraic fractions

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## Summary

Answers to questions relating to the guide on arithmetic on algebraic fractions.

*These are the answers to [Questions: Arithmetic on algebraic fractions](#).*

**Please attempt the questions before reading these answers!**

## Q1

1.1.  $\frac{7}{x}$

1.2.  $\frac{2x-1}{3}$

1.3.  $\frac{3}{y}$

1.4.  $\frac{1}{x}$

1.5.  $-1$

1.6.  $\frac{3}{2x}$

1.7.  $\frac{7}{15y}$

1.8.  $\frac{x}{2}$

1.9.  $\frac{5x+2}{x(x+1)}$

1.10.  $\frac{6}{t-1}$

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

1.12.  $\frac{x-6}{(x+2)(x-2)}$

1.13.  $\frac{3c+1}{c^2}$

$$1.14. \frac{x(2x-3)}{(x-3)(x+3)}$$

$$1.15. \frac{x^2-x-5}{(x+2)^2}$$

## Q2

$$2.1. \frac{2x}{15}$$

$$2.2. 6$$

$$2.3. \frac{x(x+1)}{6}$$

$$2.4. \frac{3}{4}$$

$$2.5. \frac{x-3}{4}$$

$$2.6. -\frac{6}{x}$$

$$2.7. \frac{m}{2}$$

$$2.8. \frac{x+2}{x+3}$$

$$2.9. \frac{3}{4}$$

$$2.10. \frac{x+3}{x+1}$$

$$2.11. -\frac{3}{2}$$

$$2.12. \frac{2x}{3(x-2)}$$

## Q3

$$3.1. \frac{5}{2}$$

$$3.2. 6$$

$$3.3. \frac{1}{2}$$

$$3.4. \frac{3x}{2}$$

$$3.5. \frac{4(x-2)}{3x}$$

$$3.6. \frac{v-1}{v}$$

3.7.  $-6$

3.8.  $2$

3.9.  $\frac{1}{2}$

3.10.  $\frac{x+3}{x-3}$

3.11.  $2$

3.12.  $\frac{3(x+2)}{2x}$

#### Q4

4.1.  $\frac{x+y}{y}$

4.2.  $-\frac{6x}{x+2}$

4.3.  $\frac{1}{2}$

4.4.  $\frac{t+2}{3t}$

4.5.  $-\frac{2x(x+1)}{x-1}$

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#### Version history and licensing

v1.0: initial version created 12/25 by Donald Campbell as part of a University of St Andrews VIP project.

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