

6.3 More Adding & Subtracting Rat Exp

1. Can the rational expression $\frac{-x+5}{(x-5)(x+5)}$ be simplified further? Explain

2. Simplify completely and give non-permissible values:

a) $\frac{1}{x^2+x-12} + \frac{3}{x-3}$

b) $\frac{2}{x^2+x-6} + \frac{3}{x^3+2x^2-3x}$

c) $\frac{5x}{x^3 + x^2 - 6x} + \frac{x-8}{x^2 - 5x - 24}$

d) $\frac{1}{x^2 + x - 12} + \frac{3}{x-3}$

e) $\frac{x+3}{x^2-5x+6} + \frac{6}{x^2-7x+12}$

f) $\frac{x-2}{x+5} + \frac{x^2-2x-3}{x^2-x-6} \times \frac{x^2+2x}{x^2-4x}$

3. Simplify each complex fraction by multiplying by a “convenient form of 1”.

$$\text{a) } \frac{\frac{\frac{3}{2} + \frac{3}{a}}{\frac{a}{a+6} - \frac{1}{a}}}$$

$$\text{b) } \frac{\frac{\frac{3}{m} - \frac{3}{2m+3}}{\frac{3}{m^2} + \frac{1}{2m+3}}}$$

Assignment: p. 336 # 6ace, 7ac, 10, 15ac