Section 2: Rational expressions

Exercise level 2

1. Express as a single fraction

   (i) $\dfrac{2}{x+3} + \dfrac{1}{x-5}$

   (ii) $\dfrac{5}{2x-3} - \dfrac{2}{4x+1}$

   (iii) $t - \dfrac{5}{3t-1}$

2. Express as a single fraction

   (i) $\dfrac{1}{2(x+5)} - \dfrac{1}{4(x+1)}$

   (ii) $\dfrac{3u}{u^2-4u+4} + \dfrac{1}{2-u}$

3. Solve these equations:

   (i) $\dfrac{3x}{4} - \dfrac{x}{6} = 7$

   (ii) $\dfrac{30}{2x-5} + \dfrac{27}{2x+1} = 13$

4. Divide

   (i) $3x^3 - x^2 + 2x - 4$ by $x+2$

   (ii) x^3 by x^2+2

   (iii) $6x-2$ by $2x+3$