

Question 1

$$\frac{1}{x+1} - \frac{1}{x+3}$$

Question 2

a) $\frac{3}{x-5} - \frac{2}{x-3}$

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

c) $\frac{2}{x} - \frac{1}{x-2}$

Question 3

$$\frac{2}{x-2} - \frac{1}{x+3} - \frac{1}{x+1}$$

Question 4

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

b) $\frac{3}{x+1} + \frac{2}{x-2} - \frac{5}{x+3}$

c) $\frac{3}{x} - \frac{2}{x+4} - \frac{1}{x-4}$

Question 5

a) $-\frac{3}{3x+4} + \frac{1}{2x+1}$

b) $\frac{3}{x+3} + \frac{1}{x-1} - \frac{4}{x+5}$

c) $-\frac{19}{7(4x-1)} + \frac{13}{7(2x+3)}$

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

e) $\frac{1}{x} - \frac{2}{x-1} + \frac{3}{x+4}$

Challenge Question

$$-\frac{6}{x+1} + \frac{14}{x+2} - \frac{8}{x+3}$$

Question 1

$$\frac{5}{x-1} + \frac{1}{(x-1)^2}$$

Question 2

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

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

$$\text{c) } \frac{1}{x+1} + \frac{3}{(x+1)^2}$$

Question 3

$$-\frac{1}{x+3} + \frac{1}{x-2} - \frac{5}{(x-2)^2}$$

Question 4

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

$$\text{b) } \frac{1}{x-1} - \frac{1}{x-2} + \frac{4}{(x-2)^2}$$

$$\text{c) } \frac{1}{x-2} - \frac{1}{x+1} - \frac{3}{(x+1)^2}$$

Question 5

$$-\frac{9}{4x} - \frac{9}{2x^2} - \frac{9}{4(x-2)}$$

Challenge Question

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