

$$= -6(x+3)$$

Qn 2 (continued)

$$= x(x+3) - 6(x+3)$$

Factor out common term $x+3$

$$= (x+3)(x-6)$$

$$= \frac{(x+3)(x-6)}{x+4x+3}$$

$$x+4x+3$$

$$\text{Factor } x^2+4x+3 = (x+1)(x+3)$$

$$x^2+x = x(x+1)$$

$$3x+3 = 3(x+3)$$

$$= x(x+1) + 3(x+1)$$

$$= (x+1)(x+3)$$

$$= \cancel{(x+3)} \cancel{(x+1)}$$

$$= \frac{(x+3)(x-6)}{(x+1)(x+3)}$$

$$= \frac{(x+3)(x-6)}{(x+1)(x+3)}$$

= Factor out factor $(x+3)$

$$= \frac{x-6}{x+1}$$