

## Workout

### Question 1

- (a)  $x^3 + 6x^2 + 11x + 6$
- (b)  $x^3 + 9x^2 + 24x + 20$
- (c)  $x^3 + 2x^2 - 5x - 6$
- (d)  $x^3 + 4x^2 - 19x + 14$
- (e)  $x^3 - 9x^2 + 26x - 24$
- (f)  $x^3 - 7x^2 + 4x + 12$
- (g)  $2x^3 + 9x^2 + 10x + 3$
- (h)  $3x^3 + 10x^2 - 23x + 10$
- (i)  $5x^3 + 8x^2 - 7x - 6$
- (j)  $2x^3 - x^2 - 15x$
- (k)  $9x^3 - 69x^2 - 200x - 100$

### Question 2

- (a)  $x^3 + 6x^2 + 12x + 8$
- (b)  $x^3 + 15x^2 + 75x + 125$
- (c)  $x^3 - 9x^2 + 27x - 27$
- (d)  $x^3 - 15x^2 + 75x - 125$
- (e)  $x^3 + 7x^2 + 15x + 9$
- (f)  $x^3 - 13x^2 + 56x - 80$
- (g)  $8x^3 + 36x^2 + 54x + 27$
- (h)  $64 - 48x + 12x^2 - x^3$
- (i)  $125 - 150x + 60x^2 - 8x^3$
- (j)  $x^3 - 4x^2 - 3x + 18$
- (k)  $x^3 + 12x^2 + 36x$

Question 3

(a)  $4x^3 + 29x^2 + 54x + 37$

(b)  $7x^3 - 24x^2 + 6x + 37$

**Apply**

Question 1:  $a=5$

Question 2:  $a=2$  and  $b=1$

Question 3:  $a=6$  and  $b=10$