

Exercise 6B

1 For each sequence:

i Find the 15th term.

ii Find an expression for the n th term.

a $3, 6, 9, \dots$

b $25, 40, 55, \dots$

c $36, 41, 46, \dots$

d $100, 87, 74, \dots$

e $5.6, 6.2, 6.8, \dots$

f $x, x + a, x + 2a, \dots$

2 Find the number of terms in each sequence.

a $5, 10, 15, \dots, 255$

b $4.8, 5.0, 5.2, \dots, 38.4$

c $\frac{1}{2}, \frac{7}{8}, \frac{5}{4}, \dots, 14$

d $250, 221, 192, \dots, -156$

e $2m, 5m, 8m, \dots, 80m$

f $x, 3x + 3, 5x + 6, \dots, 19x + 27$

Exercise 6C

1 An arithmetic sequence has first term 19 and 15th term 31.6.
Find the common difference.

EXAM-STYLE QUESTION

2 In an arithmetic sequence, $u_{10} = 37$ and $u_{21} = 4$.

Find the common difference and the first term.

3 Find the value of x in the arithmetic sequence $3, x, 8, \dots$

4 Find the value of m in the arithmetic sequence $m, 13, 3m - 6, \dots$
