

## An arithmetic sequence

## creating a formula to find a specific term

- Which of the following is the explicit function rule for:  $-3, 4, 11, 18, \dots$ ?
- a.  $a_n = 8n - 10$
  - b.  $a_n = 7n - 10$
  - c.  $a_n = 8n - 11$
  - d.  $a_n = 7n - 11$

- Which of the following is the explicit function rule for:  $-5, -3, -1, 1, \dots$ ?
- a.  $a_n = 3n - 7$
  - b.  $a_n = 2n - 7$
  - c.  $a_n = 2n - 8$
  - d.  $a_n = 3n - 8$

Which of the following is the explicit function rule for:  $-2, -9, -16, -23, \dots$ ?

What is the  $n^{\text{th}}$  term when  $n = 16$ ?

- |                          |                          |
|--------------------------|--------------------------|
| a. $a_n = -8n + 4; -124$ | e. $a_n = -8n + 4; -108$ |
| b. $a_n = -7n + 4; -123$ | f. $a_n = -8n + 5; -107$ |
| c. $a_n = -7n + 5; -107$ | g. $a_n = -7n + 5; -124$ |
| d. $a_n = -7n + 4; -108$ | h. $a_n = -8n + 5; -123$ |

Which of the following is the explicit function rule for:  $-5, -9, -13, -17, \dots$ ?

What is the  $n^{\text{th}}$  term when  $n = 28$ ?

- |                          |                          |
|--------------------------|--------------------------|
| a. $a_n = -5n - 1; -141$ | e. $a_n = -5n - 2; -142$ |
| b. $a_n = -4n - 2; -114$ | f. $a_n = -4n - 1; -142$ |
| c. $a_n = -4n - 2; -141$ | g. $a_n = -5n - 1; -113$ |
| d. $a_n = -5n - 2; -114$ | h. $a_n = -4n - 1; -113$ |

Find the  $n^{\text{th}}$  for the following sequence when  $n = 14$ :  
 $-1, -9, -17, -25, \dots$

Find the  $n^{\text{th}}$  for the following sequence when  $n = 29$ :  
 $-3, -9.8, -16.6, -23.4, \dots$