

**Practice Worksheet****Arithmetic Sequences and Series****Solve.**

1. Find the 24th term in the sequence for which  $a = -27$  and  $d = 3$ .
2. Find  $n$  for the sequence for which  $a_n = 27$ ,  $a = -12$ , and  $d = 3$ .
3. Find  $d$  for the sequence for which  $a = -12$  and  $a_{23} = 32$ .
4. Find the first term in the sequence for which  $d = -3$  and  $a_6 = 5$ .
5. Find the first term in the sequence for which  $a_4 = -21$  and  $a_7 = -3$ .
6. Find the sixth term in the sequence  $-3 + \sqrt{2}, 0, 3 - \sqrt{2}, \dots$ .
7. Find the 45th term in the sequence  $-17, -11, -5, \dots$ .
8. Form a sequence that has one arithmetic mean between 35 and 45.
9. Find the sum of the first 13 terms in the series  $-5 + 1 + 7 + \dots + 43$ .