Arithmetic Series SOLUTIONS

1. i. $T_n = 3n - 1$
   ii. $T_n = 4n - 12$
   iii. $T_n = 13 - 4n$
2. $a = 1, d = 3$
3. $T_{n+1} - T_n \neq$ a constant
4. $T_n = 2n + 1$
5. $T_n = 3n - 2$
6. $S_n = 2n^2 + n$
   $n = 10$
7. $a = 2, d = 5$
8. (a) 6, 14, 24
   (b) $a = 6$, $d = 2$
   (c) $T_n = 2n + 4$
9. $x = \frac{7}{2}$
10. $T_n = 3n - 1$
11. $x = 2$, $y = 4$
12. i. 38
    ii. 11
    iii. 55
13. i. €10.5m
    ii. €973.75m

Leamy Maths Community