

## Answers to Arithmetic Sequences

- 1)  $d = -3$                       2)  $d = -20$                       3)  $d = -30$                       4)  $d = -10$
- 5)  $d = -2$                       6)  $d = 5$                       7) First Five Terms:  $-4, 3, 10, 17, 24$   
 $a_{34} = 227$
- 8) First Five Terms:  $-35, -135, -235, -335, -435$   
 $a_{39} = -3835$
- 9) First Five Terms:  $-9.2, -11.3, -13.4, -15.5, -17.6$   
 $a_{27} = -63.8$
- 10) First Five Terms:  $\frac{15}{8}, \frac{19}{8}, \frac{23}{8}, \frac{27}{8}, \frac{31}{8}$   
 $a_{23} = \frac{103}{8}$
- 11) First Five Terms:  $28, 38, 48, 58, 68$   
 Explicit:  $a_n = 18 + 10n$
- 12) First Five Terms:  $-38, -138, -238, -338, -438$   
 Explicit:  $a_n = 62 - 100n$
- 13) First Five Terms:  $-34, -44, -54, -64, -74$   
 Explicit:  $a_n = -24 - 10n$
- 14) First Five Terms:  $35, 39, 43, 47, 51$   
 Explicit:  $a_n = 31 + 4n$
- 15) First Five Terms:  $-12.5, -13.6, -14.7, -15.8, -16.9$   
 Explicit:  $a_n = -11.4 - 1.1n$
- 16) First Five Terms:  $-21, -51, -81, -111, -141$   
 Explicit:  $a_n = 9 - 30n$
- 17) First Five Terms:  $-39, -31, -23, -15, -7$   
 Explicit:  $a_n = -47 + 8n$
- 18) First Five Terms:  $-31, -38, -45, -52, -59$   
 Explicit:  $a_n = -24 - 7n$
- 19) Next 3 terms:  $\frac{4}{15}, -\frac{1}{15}, -\frac{2}{5}$   
 Recursive:  $a_n = a_{n-1} - \frac{1}{3}$   
 $a_1 = \frac{3}{5}$
- 20) Next 3 terms:  $34, 29, 24$   
 Recursive:  $a_n = a_{n-1} - 5$   
 $a_1 = 39$
- 21) Next 3 terms:  $6, 4, 2$   
 Recursive:  $a_n = a_{n-1} - 2$   
 $a_1 = 8$
- 22) Next 3 terms:  $-8.3, -7.4, -6.5$   
 Recursive:  $a_n = a_{n-1} + 0.9$   
 $a_1 = -9.2$
- 23) Next 3 terms:  $-0.8, -0.2, 0.4$   
 Recursive:  $a_n = a_{n-1} + 0.6$   
 $a_1 = -13.4$
- 24) Next 3 terms:  $-46, -48, -50$   
 Recursive:  $a_n = a_{n-1} - 2$   
 $a_1 = -2$
- 25) Next 3 terms:  $-286, -294, -302$   
 Recursive:  $a_n = a_{n-1} - 8$   
 $a_1 = 18$
- 26) Next 3 terms:  $30.4, 32.2, 34$   
 Recursive:  $a_n = a_{n-1} + 1.8$   
 $a_1 = 8.8$
- 27)  $a_n = a_{n-1} + 200$   
 $a_1 = -38$
- 28)  $a_n = a_{n-1} + 2.7$   
 $a_1 = -1.6$
- 29)  $a_n = a_{n-1} + 6$   
 $a_1 = -5$
- 30)  $a_n = a_{n-1} - \frac{1}{2}$   
 $a_1 = \frac{1}{8}$