

Practise, Apply, Solve 1.6, page 47

- not arithmetic
 - arithmetic, $d = -9$
 - not arithmetic
 - not arithmetic
 - arithmetic, $d = 11$
 - arithmetic, $d = \frac{1}{4}$
- arithmetic, 3
 - not arithmetic
 - arithmetic, -4
 - not arithmetic
 - arithmetic, $\frac{1}{2}$
 - not arithmetic
- $d = 5, t_n = 5n, t_{10} = 50$
 - $d = 6, t_n = 6n - 36, t_{10} = 24$
 - $d = -2, t_n = -2n + 15, t_{10} = -5$
 - $d = \frac{1}{3}, t_n = \frac{1}{3}n, t_{10} = \frac{10}{3}$
 - $d = 0.15, t_n = 0.15n + 0.05, t_{10} = 1.55$
 - $d = 0, t_n = -3, t_{10} = -3$
- $t_n = t_{n-1} + 5, t_1 = 5$
 - $t_n = t_{n-1} + 6, t_1 = -30$
 - $t_n = t_{n-1} - 2, t_1 = 13$
 - $t_n = t_{n-1} + \frac{1}{3}, t_1 = \frac{1}{3}$
 - $t_n = t_{n-1} + 0.15, t_1 = 0.2$
 - $t_n = -3, t_1 = -3$
- $t_n = 6n + 1$
 - $t_n = -2n - 7$
 - $t_n = -6n + 31$
 - $t_n = 12n + 109$
- 31, 40, 49
 - $t_n = 9n - 14$
 - 1786
- $t_n = 2n, t_{24} = 48$
 - $t_n = -3n + 2, t_{24} = -70$
 - $t_n = 5n + 5, t_{24} = 125$
 - $t_n = -10n - 20, t_{24} = -260$
- dots in straight line through (0, -6) and (1.5, 0)
 - dots in straight line through (0, 3) and (0.6, 0)
 - dots in straight line through (0, -1) and (-1, 0)
 - dots in straight line through (0, 4) and (-8, 0)
 - dots in straight line through (0, 0.5) and (-1, 0)
 - dots in straight line through (0, -2) and (1, 8)
 - dots in straight line through (1, 0) and (0, -3)
 - dots in straight line through (0, 4) and (2, 0)
- (1, -9), (2, -6), (3, -3), (4, 0), (5, 3), (6, 6)
 - t_{11}
 - t_{11}
 - general term
- \$40
 - \$525
 - \$807.50
 - \$248.80
 - \$11.84
- 22
 - 33
 - 40
 - 15
 - 14
 - 19
- \$90
 - \$2000, \$2090, \$2180, \$2270, \$2360
 - $t_n = \$90n + \$1910, t_1 = \$2000$
 - 16
- 32 a
 - 22
- 37
 - 2063
 - $t_n = 1531 + 76n$
 - 23rd century (2215 and 2291)
 - No; comet may not return.
- $t_n = t_{n-1} + d, t_1 = a$
- $a = 8, d = 3, t_n = 3n + 5$
 - $a = -14, d = -5, t_n = -5n - 9$
 - $a = -25, d = 7, t_n = 7n - 32$
 - $a = 10.5, d = 0.5, t_n = 0.5n + 10$
 - $a = 28, d = 6, t_n = 6n + 22$
 - $a = 38, d = -7, t_n = -7n + 45$
- \$116.25
- $t_n = 6n + 11, t_{25} = 161$
 - common difference between terms, can be written as $t_n = a + (n - 1)d$
- \$602.50
- $\frac{c+d}{2} - c = \frac{d-c}{2}$ and $d - \frac{c+d}{2} = \frac{d-c}{2}$
- $t_n = (-2x - 1)n + (7x - 2)$
- 320