

Review Packet-Sequence and Series,

3. (a) (i) 2 minutes 12 seconds
(ii) $2(1.05)^2 = 2.205$
(b) = 25.2 minutes (or 25 minutes 12 seconds)
4. (a) 250
(b) 215.89
(c) After 16 years
5. (a) $r = 2$
(b) 114681 (accept fewer sig fig up to 115000)
6. (a) = -16
(b) $n = 15$
7. (a) $u_1 + 3d = 12$
 $u_1 + 9d = 42$
(b) $d = 5$
 $u_1 = -3$
10. (a) $4n - 3$
(b) 397
(c) 19 900
12. (a) $r = 1.25$
(b) 22518 (to the nearest dollar)
14. $d = 200$
18. (a) (i) Cost of loan = \$ 507.30
(ii) Equivalent S.I. Rate = = 12.7 % (3 s.f.)
(b) (i) Deposit = \$1000

- (ii) Cost of the loan = \$ 450.00
- (c) (i) Option A. Because she doesn't need a deposit (or equivalent appropriate explanation).
- (ii) Option B. Because it is cheaper by $$(507.30 - 450.00) = \57.30 (or equivalent appropriate explanation).
- (d) $x = 400$
 $y = 60$
- (e) 61 months

- 19.** (a) Choice A = \$1200
Choice B = \$ 1239.51
Choice C = \$1230
Choice D = \$1273.37
- (b) Option D because the total allowance is the highest
 - (c) $R = 10\%$