YEAR 11 MATHS

anythingpdf.com.au

Arithmetic & Geometric Sequences

Find terms, rules and sums of sequences

Name: _____ **Date:** _____ **Score:** _____ / 12

Arithmetic: $t = a + (n-1)d$, $S = n/2 \times (2a + (n-1)d)$. Geometric: $t = ar^{n-1}$, $S = a(r^n - 1)/(r - 1)$.

1. Arithmetic: a = 5, d = 3. t_{10} = _____
2. Arithmetic: a = 40, d = −4. t_8 = _____
3. Arithmetic: a = 2.5, d = 0.5. t_{15} = _____
4. Arithmetic: a = 3, d = 4. Sum of the first 20 terms S = _____
5. Arithmetic: a = 100, d = −5. Sum of the first 12 terms S = _____
6. Geometric: a = 2, r = 3. t_5 = _____
7. Geometric: a = 64, r = 1/2. t_7 = _____
8. Geometric: a = 5, r = −2. t_6 = _____
9. Geometric: a = 3, r = 2. Sum of the first 6 terms S = _____
10. Geometric: a = 1, r = 3. Sum of the first 5 terms S = _____
11. Sequence 7, 11, 15, 19, ... Rule for the nth term t_n = _____
12. Sequence 3, 6, 12, 24, ... Rule for the nth term t_n = _____

Free sample · more worksheets at anythingpdf.com.au

anythingpdf.com.au

Arithmetic & Geometric Sequences

Find terms, rules and sums of sequences

Arithmetic: $t = a + (n-1)d$, $S = \frac{n}{2} \times (2a + (n-1)d)$. Geometric: $t = ar^{1}$, $S = a(r^{} - 1)/(r - 1)$.

1. 32

2. 12

3. 9.5

4. 820

5. 870

6. 162

7. 1

8. −160

9. 189

10. 121

11. $4n + 3$

12. $3 \times 2^{n-1}$

Free sample · more worksheets at anythingpdf.com.au