

Arithmetic and Geometric Review

Key Ideas: • For Arithmetic sequences you are adding to get the next term.

$$t_n = t_1 + (n-1)d$$

Arithmetic

• For geometric sequences you are multiplying to get the next term.

$$t_n = t_1 \cdot r^{(n-1)}$$

geometric

← Memorize

Ex 1 (a) Find the next two terms:

6, 2, -2, -6, —, —

(b) Find the formula for the n^{th} term.

(c) find t_{25}

Ex 2 (a) Find the next two terms:

3, 12, 48, 192, —, —

(b) Find the formula for the n^{th} term.

(c) find t_{10}

Ex 3 Find the geometric mean of 2 and 32°

Ex 4 Find the arithmetic mean for 4 and 36.

Ex 5 Find the next two terms:

$$\frac{1}{3}, \frac{2}{5}, \frac{3}{7}, \frac{4}{9}, -, -$$