



SECTION 2.2 GEOMETRIC SEQUENCES

- i) Terms, common ratio, number of terms in a geometric sequence
- ii) Geometric means
- iii) Solving Algebraic sequences

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D) WHAT IS A GEOMETRIC SEQUENCE?

- o A sequence where each term after the first is
- o Not the same as an arithmetic sequence (Add)

2, 6, 18, _____

$3 \frac{3}{2} \frac{3}{4}$ _____

6 -4 $\frac{8}{3}$ $\frac{-16}{9}$ _____

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II) FORMULA FOR GEOMETRIC SEQUENCE:

t_n :
 a :
 r :
 n :



EX: GIVEN THE FOLLOWING SEQUENCE, FIND THE 20TH TERM:

$$3 \quad \frac{3}{2} \quad \frac{3}{4} \quad \underline{\quad} \quad \underline{\quad}$$

EX: GIVEN THE THREE TERMS IN A GEOMETRIC SEQUENCE, FIND THE COMMON RATIO:

$$\frac{c^4}{f^2}, \frac{c}{f}, \frac{1}{c^2}$$

EX: THE THIRD TERM OF A GEOMETRIC SEQUENCE IS 27 AND THE SIXTH TERM IS 64. FIND THE COMMON RATIO:

$$\underline{\quad} \quad \underline{27} \quad \underline{\quad} \quad \underline{\quad} \quad \underline{64}$$

EX: GIVEN $t_4 = 72$ AND $t_6 = 32$ FIND THE COMMON RATIO AND THE FIRST TERM:

$$\underline{\quad} \quad \underline{\quad} \quad \underline{72} \quad \underline{\quad} \quad \underline{32}$$
