

p. 599 #4 2, 6, 18, 54, 162

#8 $a_1 = 1$

$$a_n = a_{n-1} + 3$$

p. 604 #15 8th term

24, -6, 3/2, ...

explicit
formula,
geometric
seq.

Strategy: ① find a_1, r

② work out $a_n = a_1 \cdot r^{n-1}$
for $n=8$

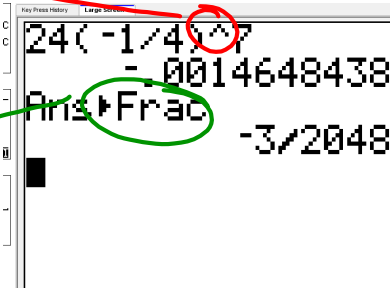
$$r = \frac{a_2}{a_1} = \frac{-6}{24} = -\frac{1}{4} = r \quad a_1 = 24$$

$$a_n = a_1 \cdot r^{n-1}$$

$$a_8 = 24 \cdot \left(-\frac{1}{4}\right)^7$$

Caret -
exponentiation

MATH
menu



$$\#13 \quad 3, 9, 27, \dots$$

$$r = \frac{9}{3} = 3$$

$$a_8 = a_1 \cdot 3^7$$

$$= 3 \cdot 3^7 = \underline{\hspace{2cm}}$$

p. 604 #17

$$r = \frac{a_2}{a_1} = .527$$

$$a_4 = a_3 \cdot r = 182.475$$

⋮

0	1	2	3	4
1244	•	346	•	•
a_1	a_2	a_3	a_4	a_5

↑
geometric mean

$$= \sqrt{1244 \cdot 346}$$

$$a_2 = 656.067$$

p. 599 #4 $a_1 = 2$

$$a_n = 3 \cdot a_{n-1}$$

(recursive)

$$a_1 = 2$$

$$a_2 = 3 \cdot a_{2-1} = 3 \cdot a_1 = 3 \cdot 2 = 6$$

$$a_3 = 3 \cdot a_{3-1} = 3 \cdot a_2 = 3 \cdot 6 = 18$$