

Station 8

Determine whether the sequence converges or diverges. If it converges, give the limit.

1) $60, 10, \frac{5}{3}, \frac{18}{5}, \dots$

- A) Converges; -15540
C) Converges; 0

- A) Converges; 72
D) Diverges

2) $36, -\frac{36}{36}, \frac{5}{25}, -\frac{125}{36}, \dots$

- A) Converges; 45
C) Diverges

- B) Converges; 30
D) Converges; 3744

3) $\frac{1}{4}, \frac{1}{2}, \frac{462}{231}, \frac{231}{231}, \dots$

- A) Converges; 0
C) Converges; $\frac{1}{231}$

- B) Converges; $\frac{231}{2}$
D) Diverges

Find the first six terms of the sequence.

4) $a_1 = 8, a_2 = 9; \text{ for } n \geq 3, a_n = a_{n-1} + a_{n-2}$

- A) 8, 9, 17, 18, 26, 26
C) 8, 9, 72, 648, 46,656, 30,233,088

- B) 8, 9, 17, 26, 43, 69
D) 8, 9, 16, 24, 32, 40

5) $a_1 = -3, a_n = a_{n-1} + 7$

- A) -3, 7, 14, 21, 28, 35
C) 0, 7, 14, 21, 28, 35

- B) -3, 4, 11, 18, 25, 32
D) 4, 11, 18, 25, 32, 39

converge: graph & see if \downarrow
value is the HA

diverge: graph & see if \downarrow

L_1 - term #
 L_2 - term

Graph \rightarrow HA

STAT/ CALC/O/VARS/WARS/E/E/E