Talk with the people around you for a minute

The sequence $\left\{ \frac{1}{2k} \right\}_{k=1}^{\infty}$ converges

(a) True, and I can explain why

(b) True, but I am unsure why

(c) False, and I can explain why

(d) False, but I am unsure why

(e) Uhhhhh ...

Talk with the people around you for a minute

The sequence $\left\{1 - \frac{1}{k}\right\}_{k=1}^{\infty}$ converges

(a) True, and I can explain why

(b) True, but I am unsure why

(c) False, and I can explain why

(d) False, but I am unsure why

(e) Uhhhhh ...

Talk with the people around you for a minute

The sequence $\{(-1)^n\}_{n=0}^{\infty}$ converges

(a) True, and I can explain why

(b) True, but I am unsure why

(c) False, and I can explain why

(d) False, but I am unsure why

(e) Uhhhhh ...

Work on these with your partner(s) at the board

For each sequences:

(a) Write the first 4 terms of the sequence

(b) Determine if the sequence converges or diverges

(c) If the sequence converges, find the limit

1. $\left\{\frac{(-1)^k}{k}\right\}_{k=1}^{\infty}$

2. $\left\{\frac{5k^2-42}{3k^2+5}\right\}_{k=1}^{\infty}$

3. $\left\{\frac{e^j}{j^2+32j}\right\}_{j=3}^{\infty}$