Talk with the people around you for a minute

The sequence $\left\{ \dfrac{1}{2k} \right\}_{k=1}^{\infty}$ 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 $\left\{ 1 - \dfrac{1}{k} \right\}_{k=1}^{\infty}$ 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 . . .

Do the following sequences converge or diverge?
If the sequence converges, find the limit.

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

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

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