Question: $\sum_{n=1}^{\infty} \frac{5n^2+2n-1}{3n^4-n^3+19}$. C/D.
Answer:

C

□

Question: $\sum_{n=1}^{\infty} \frac{n^2}{n^3+1}$. C/D.
Answer:

D

□

Question: $\sum_{n=1}^{\infty} \frac{10^n}{(n+1)4^{2n+1}}$. C/D.
Answer:

C

□

Question: $\sum_{n=1}^{\infty} \frac{n}{\sqrt{n^3-1}}$. C/D.
Answer:

D

□

Question: $f(x) = \frac{x^2}{2-x}$.

Answer:

$\sum_{n=1}^{\infty} \frac{x^{n+2}}{2^{n+1}}$.

□

Question: $\sum_{n=1}^{\infty} \frac{\pi^{2n}(-1)^n}{3^{2n}(2n)!}$.

Answer:

$\cos(\pi/3)$.

□

Question: $f(x) = \frac{1}{x}$ at $x = 3$.

Answer:

$\sum_{n=1}^{\infty} \frac{(-1)^n(x-3)^n}{3^{n+1}}$.

□

Question: $\sum_{n=1}^{\infty} \frac{(-1)^n n x^n}{2^n}$. Find R and I.

Answer:

$R = 2; I = (-2, 2)$.

□

Question: Use the Maclaurin series for e^x to find the Maclaurin series for x^2e^{-2x}.
Answer:

$\sum_{n=1}^{\infty} \frac{(-1)^n 2^n x^{n+2}}{n!}$.

□

Question: $\sum_{n=1}^{\infty} \frac{(-1)^n}{\sqrt{n}}$. AC/CC/D.

Answer:

CC

□

Question: $\sum_{n=0}^{\infty} \frac{(-1)^n(x-3)^n}{2n+1}$. Find R and I.

Answer:

$R = 1; I = (2, 4]$.

□

Question: $\sum_{n=0}^{\infty} \frac{(-1)^n x^n}{4^n \ln(n)}$. Find R and I.

Answer:

$R = 4; I = (-4, 4]$.

□

Question: $\sum_{n=1}^{\infty} \frac{(-3)^n x^n}{n\sqrt{n}}$. Find R and I.

Answer:

$R = \frac{1}{3}; I = [-\frac{1}{3}, \frac{1}{3}]$.

□