Started on	Monday, 25 January 2021, 2:05 PM
State	Finished
Completed on	Monday, 25 January 2021, 2:20 PM
Time taken	15 mins 1 sec
Grade	**6.00** out of 10.00 (**60**%)

Question 1

Correct

Mark 2.00 out of 2.00

Compute $\int_0^2 \frac{dx}{x-1}$.

Select one:

- a. 2
- b. diverges ✓
- c. 0
- d. 1

Your answer is correct.

The correct answer is: diverges

Question 2

Incorrect

Mark 0.00 out of 2.00

Compute the integral $\int_{-3}^{3} \frac{dx}{(x+2)^3}$.

Select one:

- a. divergent.
- b. $\frac{12}{25}$ ✗
- c. $-\frac{12}{25}$
- d. $\frac{24}{25}$

Your answer is incorrect.

The correct answer is: divergent.

Question 3

Correct

Mark 2.00 out of 2.00

Consider the following two integrals.

$$I_1 = \int_{-1}^{1} \frac{dx}{x^2}, \qquad I_2 = \int_{-1}^{1} \frac{dx}{1+x}$$

Which among the following statements is true?

Select one:

- a. I_1 is divergent and I_2 is convergent.
- b. Both I_1 and I_2 are convergent.
- c. Both I_1 and I_2 are divergent. ✓
- d. I_1 is convergent and I_2 is divergent.

Your answer is correct.

The correct answer is: Both I_1 and I_2 are divergent.

Question 4

Correct

Mark 2.00 out of 2.00

The improper integral $\int_0^{\infty} \frac{dx}{x^2+9}$

Select one:

- a. diverges to $-\infty$.
- b. converges to $\frac{\pi}{2}$.
- c. diverges to ∞
- d. converges to $\frac{\pi}{6}$.

Your answer is correct.

The correct answer is: converges to $\frac{\pi}{6}$.

Question 5

Incorrect

Mark 0.00 out of 2.00

The integral $\int_{\pi}^{\infty} \frac{\sin x}{x} dx$:

Select one:

- a. diverges.
- b. is not an improper integral.
- c. converges absolutely. ✗
- d. converges conditionally.

Your answer is incorrect.

The correct answer is: converges conditionally.