



Urnieta
udala

**SUBOFICIAL. COMISIÓN DE SERVICIOS.
PROPUESTA DEL TRIBUNAL CALIFICADOR**

**AZPIOFIZIALA ZERBITZU EGINKIZUNAK.
EPAIMAHAI KALIFIKATZAILEAREN
PROPOSAMENA**

Proposaturiko hautagaia:

72.442.829-M

Aspirante propuesto:

72.442.829-M

Urnieta, 2017ko irailaren 6a

Asun Bastarrika
Epaimahaiko idazkaria

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4. $\int_0^1 \frac{1}{x^2} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{x^2} dx = \lim_{\epsilon \rightarrow 0^+} \left[-\frac{1}{x} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(-1 + \frac{1}{\epsilon} \right) = \infty$

5. $\int_0^1 \frac{1}{\sqrt{x}} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{\sqrt{x}} dx = \lim_{\epsilon \rightarrow 0^+} \left[2\sqrt{x} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(2 - 2\sqrt{\epsilon} \right) = 2$

6.

7. $\int_0^1 \frac{1}{x^3} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{x^3} dx = \lim_{\epsilon \rightarrow 0^+} \left[-\frac{1}{2x^2} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(-\frac{1}{2} + \frac{1}{2\epsilon^2} \right) = \infty$

8. $\int_0^1 \frac{1}{x^4} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{x^4} dx = \lim_{\epsilon \rightarrow 0^+} \left[-\frac{1}{3x^3} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(-\frac{1}{3} + \frac{1}{3\epsilon^3} \right) = \infty$

9. $\int_0^1 \frac{1}{x^5} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{x^5} dx = \lim_{\epsilon \rightarrow 0^+} \left[-\frac{1}{4x^4} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(-\frac{1}{4} + \frac{1}{4\epsilon^4} \right) = \infty$

10. $\int_0^1 \frac{1}{x^6} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{x^6} dx = \lim_{\epsilon \rightarrow 0^+} \left[-\frac{1}{5x^5} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(-\frac{1}{5} + \frac{1}{5\epsilon^5} \right) = \infty$

11. $\int_0^1 \frac{1}{x^7} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{x^7} dx = \lim_{\epsilon \rightarrow 0^+} \left[-\frac{1}{6x^6} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(-\frac{1}{6} + \frac{1}{6\epsilon^6} \right) = \infty$

12. $\int_0^1 \frac{1}{x^8} dx = \lim_{\epsilon \rightarrow 0^+} \int_{\epsilon}^1 \frac{1}{x^8} dx = \lim_{\epsilon \rightarrow 0^+} \left[-\frac{1}{7x^7} \right]_{\epsilon}^1 = \lim_{\epsilon \rightarrow 0^+} \left(-\frac{1}{7} + \frac{1}{7\epsilon^7} \right) = \infty$