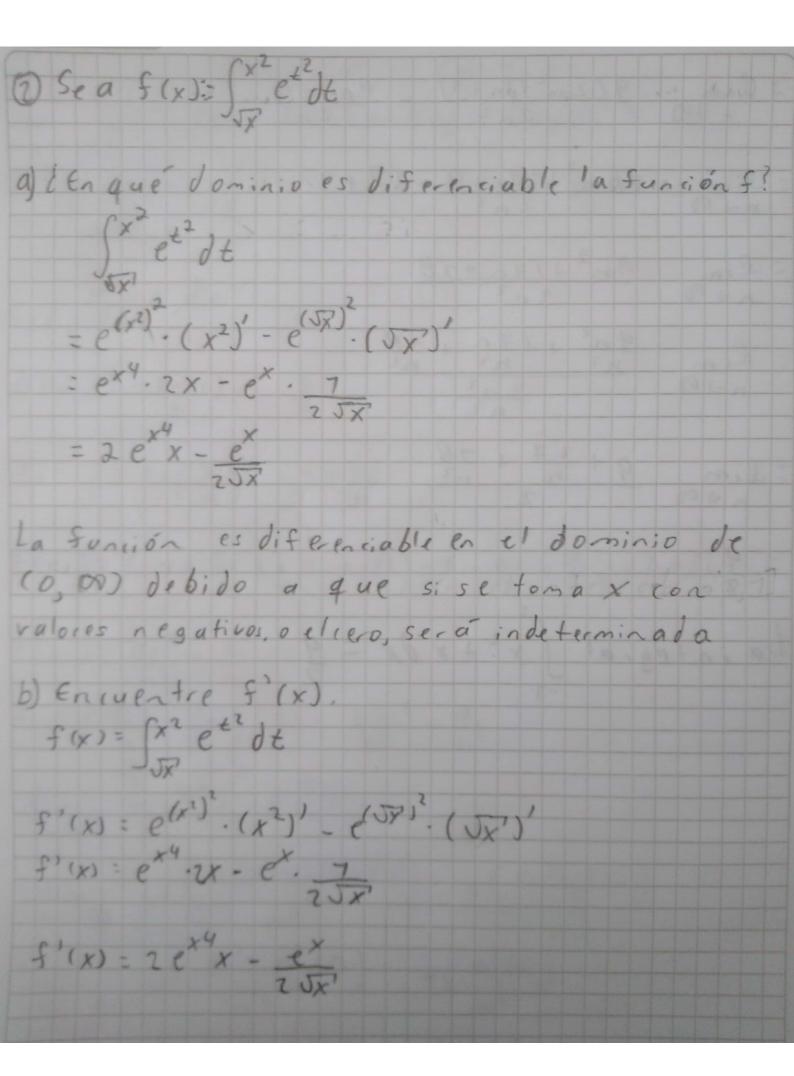
| Parcial 7 CalcInt |
|--|
| Por: David Santiago bayón Rincón |
| Déniuentre si x 2 + x dx usondo sumas de Riemann. |
| $\int_{-2}^{2} x^{2} + x dx$ |
| $\Delta x = 2 - (-1) - 3$ |
| $X_{i} = -7 + i\left(\frac{3}{n}\right) = -7 + 3i$ |
| $f(x_i) = (-7 + 3i) + (-7 + 3i) - 7 - 6i + 9i^2 - 7 + 3i$ |
| $f(x:) = q:^2 - 3:$ n^2 n^2 |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| = $\lim_{n\to\infty} 24 \left(\frac{n(n+1)(2n+1)}{6} \right) - q\left(\frac{n(n+1)}{2} \right)$ |
| $= \lim_{n \to \infty} 27 \left(\frac{2n^3 + 3n^2 + n}{6} \right) - 9 \left(\frac{n^2 + n}{2} \right)$ |
| $= \lim_{n \to \infty} \frac{54n^3 + 87n^2 + 27n}{6} + \frac{9n^2 + 9}{n^2}$ |
| |

| = lima | $\frac{9(2n^2+3n+1)}{2n^2} = \frac{4n^2-9}{2n^2}$ | and the same of |
|---------|---|-----------------|
| - lim | 78 n ² + 27 n + 9 - 9 n ² + 9 | |
| = lim | 9n ² +27n +78 | |
| = lim | 9 n ² + 2 7 n + 18 n ² + 2 n ² + n ² | |
| - lim | 9 + 2 7 + 7 B n + n ² | |
| - 9 | | 0 10 |
| Lainteg | $\int_{-1}^{2} x^{2} + x dx = \frac{9}{2}$ | |



3 Calcule la integral J Sin(x) dx Sin(x) dx 4=7-2 (05 (X) 7-2105(X) du: 25; n(x) dx du du · In Iul 1-2 (05 CO) 7-2105 (x)1 la integral Join (x) dx 1-2 (05 (x)1 4) Encuentre una función 9:12 PR que NO scaintegrable en el intervalo [0,7] pero para la cual el siguiente limite existe: lim & 7 (7) Sea f(x)= fx x E II Esta sunción no es integrable en algún intervalo y el limite existe porque va a st Dimite de 7 ó 7, pero ambos limites Coinciden y su valor es O.