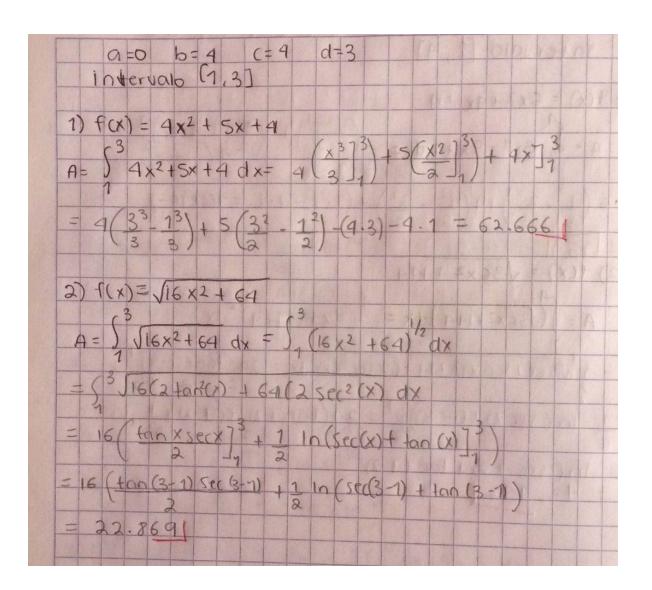
## Materia: Calculo Integral

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**Equipo Verde** 

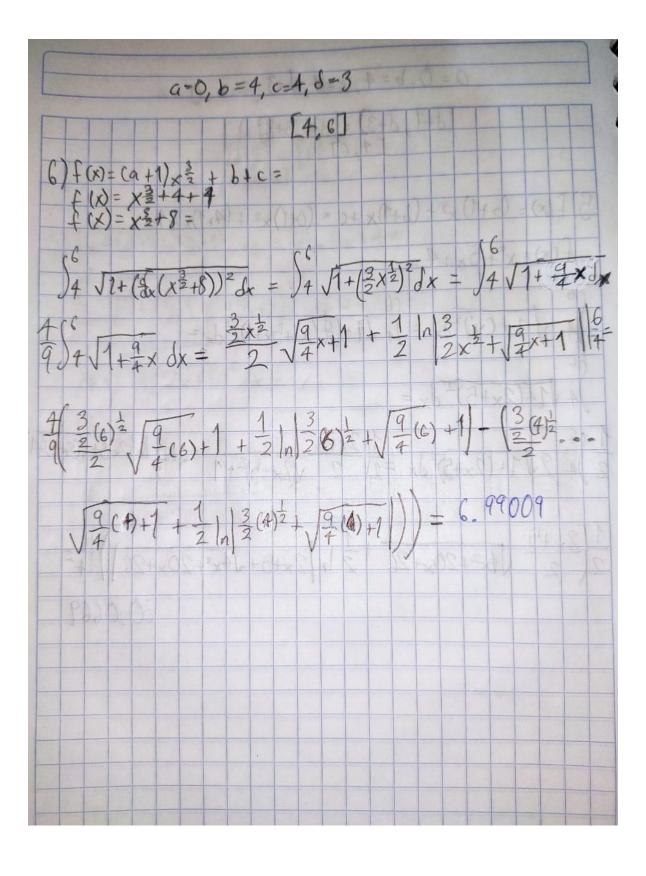
Numero de control: 19070443



8=6,4=1 +=6 ()=0 a=0, b=4, c=4, 6=3 3)  $f(x) = a+b+c+d+1+x^2, g(x)=d$   $f(x) = 0+4+4+3+1-x^2, g(x)=3$   $f(x) = 12-x^2, g(x)=3$ f(x) = g(x)  $12 - x^{2} = 3$   $12 - 3 = x^{2}$   $9 = x^{2}$   $+ \sqrt{9} = \sqrt{x^{2}}$   $\pm 3 = x$  $\int_{0}^{5} (f(x) - g(x) dx = \int_{-3}^{3} (12 - x^{2} - 3) dx = \int_{-3}^{3} 9 - x^{2} dx =$   $9x - \frac{x^{3}}{3} \Big[_{-3}^{3} = 9(3) - \frac{3^{3}}{3} - (9(-3) - (-\frac{3^{3}}{3})) = \frac{36}{3}$ 

8=8+= += 10= a=0, b=4, e=4, 6=3 4)  $f(x) = -x^2 + 3x + \alpha + b + c + d + 1, g(x) = x - d$   $f(x) = -x^2 + 3x + 0 + 4 + 4 + 3 + 1, g(x) = x - 3$   $f(x) = -x^2 + 3x + 12, g(x) = x - 3$ f(x) = 9(x)  $-x^{2}+3x+12=x-3$   $-x^{2}+3x-x+12+3=0$   $-x^{2}+2x+15=0$ (-x-3)(x-5)=0x-5=0=>x=5, -x-3=0=>x=-3 $\int_{-3}^{5} (-x^{2} + 2x + 15) dx = -x^{3} + 2x^{2} + 15x |_{-3}^{5} =$  $-\frac{5^{3}}{3} + \frac{2(5)^{2}}{2} + \frac{15(5)}{2} - \left(-\frac{(-3)^{3}}{3} + \frac{2(-3)^{2}}{2} + \frac{15(-3)}{2}\right) = 85.333...$ 

a=0,b=4,c=4,d=3 [d+1,d+3] = [3+1,3+3] [+,6] 5) f(x) = (a+1) x2 + (b+1)x +c = (0+1)x2 + (4+1)x +4= f(x)= x2+ 5x+4=  $\int_{A}^{6} \int_{1+Cy'}^{2} \int_{2}^{2} \int_{x}^{6} \int_{1+Cx}^{6} \left( \int_{0}^{2} (x^{2} + 5x + A)^{2} \right) dx =$  $(4\sqrt{1+(2x+5)^2})^2 dx =$ -+ 1 ln 2x 5+ 1(2x 5) 41  $\frac{1}{2}\int_{4}^{6} \frac{1}{2}\int_{4}^{1} \frac{1}$  $\frac{2 \times +5}{2}$   $\sqrt{4 \times^2 + 20 \times + 26}$   $\frac{1}{2}$   $\ln \left[ 2 \times +5 + \sqrt{4 \times^2 + 20 \times + 26} \right]$   $\frac{16}{4}$ 30,0669 Norma



Q=0 b=4 c=4 d=3 [4,6]  $7) f(x) = (a+1)x^2 + (b+1)x + c = (a+1)x^2 + (4+1)x^2 + (4+1)x^2$  $\pi \int_{4}^{6} f^{2}(x) dx = \pi \int_{4}^{6} (x^{2} + 5x + 4)^{2} dx$  $= \pi \int_{4}^{6} x^{4} + 10x^{3} + 33x^{2} + 40x + 16 dx$  $x^{5} + \frac{10x^{4}}{4} + \frac{33x^{3}}{3} + \frac{40x^{2}}{2} + \frac{16x}{4} = \frac{1}{3}$  $\frac{x^5}{5} + \frac{5x^4}{2} + \frac{11x^3}{20} + \frac{20x^2}{16x} + \frac{16}{4} = \frac{1}{4}$  $6^{3} + 5(6)^{4} + 11(6)^{3} + 20(6)^{2} + 16(6) \left(\frac{4^{5}}{5} + \frac{5(4)^{4}}{2} + 11(4)^{3} + 20(4)^{2} + 16(4)\right) = 19,020.458$ 

a=0, b=4, c=4, d=3 8) f(x) = (0+1) sen(D+1)x) + c = sen(5x) + 4 f(x) = sen(5x) + 475 f (x) dx = 15/4 (Sen (5x)+4) dx 17 ) 4 Sen (5x)+ 8 sen (5x)+ 16 = 87+14  $\frac{1}{2}$   $\frac{1}{2$ 116 cos(10x)dx 8n ( sen (5x) 1 1 16 16dx = 

