Medina Angely

$\frac{5}{2} - \frac{2}{3} + \frac{3}{5} = \left(\frac{5}{2} \cdot \frac{15}{15}\right) - \left(\frac{2}{3} \cdot \frac{10}{10}\right) + \left(\frac{3}{5} \cdot \frac{6}{6}\right) = 1$

$= \frac{75}{30} - \frac{30}{30} + \frac{18}{30} = \frac{73}{30}$

$\frac{5}{3} - \frac{4}{7} = \frac{35}{21} - \frac{12}{21} = \frac{23}{21}$ R//

$\frac{1}{2} + \frac{3}{4} = \frac{2}{4} + \frac{3}{4} = \frac{5}{4}$ R//

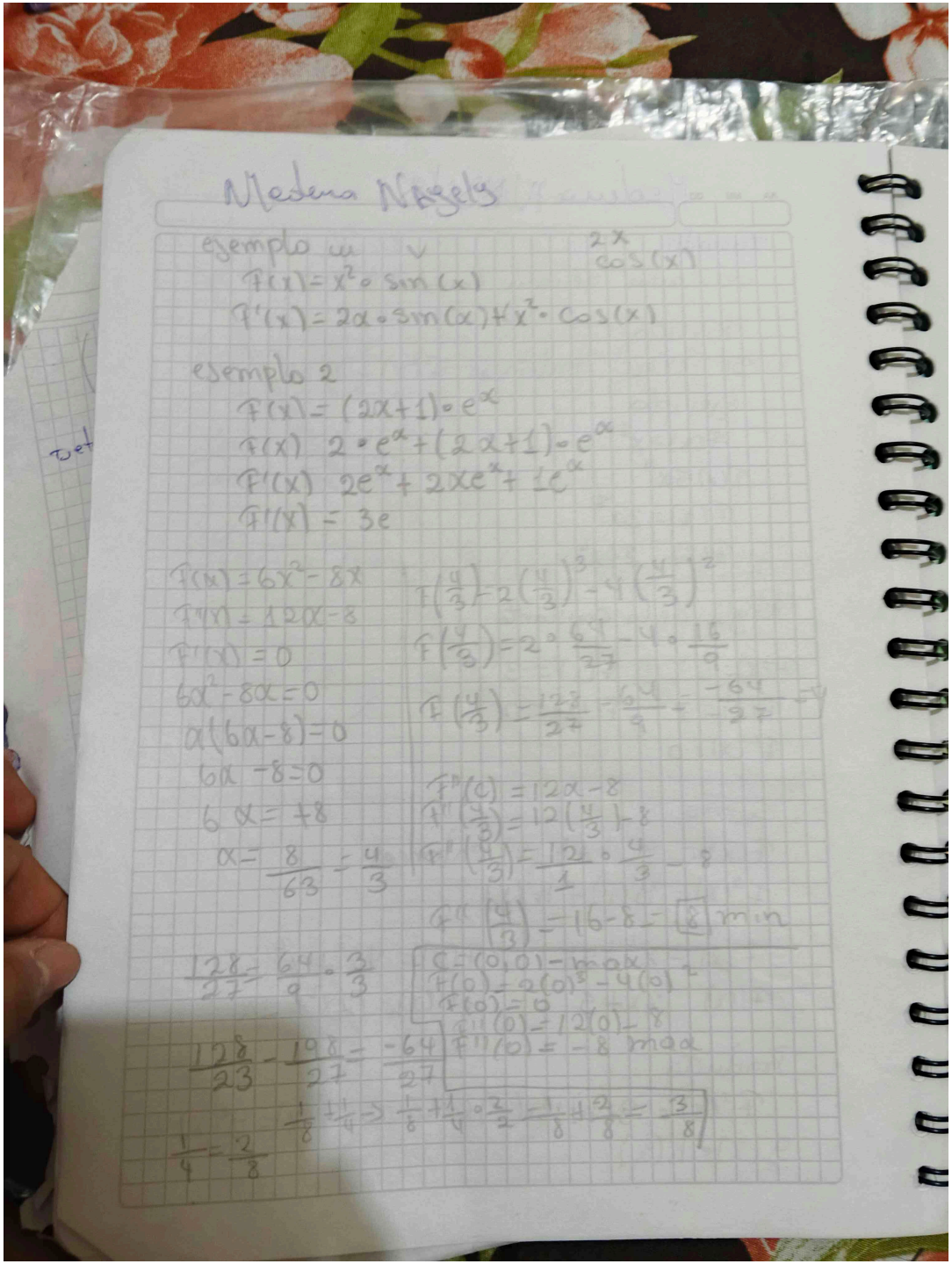
$\frac{20}{9} + \frac{1}{2} = \frac{20 \times 2}{9 \times 2} = \frac{40}{18}$

$\frac{1}{2} = \frac{1 \times 9}{2 \times 9} = \frac{9}{18}$ $40 + 9 = 49 = \frac{49}{18}$ R//

$\frac{3}{7} + \frac{1}{5} - \frac{10}{3} = \frac{45}{105} + \frac{21}{105} - \frac{350}{105} = \frac{66}{105} - \frac{350}{105} =$

$\frac{-284}{105}$ R//

Revisado



Medena Nagels

ejemplo u v 2x cos(x)

$f(x) = x^2 \cdot \sin(x)$

$f'(x) = 2x \cdot \sin(x) + x^2 \cdot \cos(x)$

ejemplo 2

$f(x) = (2x+1) \cdot e^x$

$f(x)\ 2 \cdot e^x + (2x+1) \cdot e^x$

$f'(x)\ 2e^x + 2xe^x + 1e^x$

$f'(x) = 3e$

$f(x) = 6x^2 - 8x$

$f'(x) = 12x - 8$

$f'(x) = 0$

$6x^2 - 8x = 0$

$x(6x-8) = 0$

$6x - 8 = 0$

$6x = +8$

$x = \frac{8}{6} = \frac{4}{3}$

$f\left(\frac{4}{3}\right) = 2\left(\frac{4}{3}\right)^3 - 4\left(\frac{4}{3}\right)^2$

$f\left(\frac{4}{3}\right) = 2 \cdot \frac{64}{27} - 4 \cdot \frac{16}{9}$

$f\left(\frac{4}{3}\right) = \frac{128}{27} - \frac{64}{9} = \frac{-64}{27}$

$f''(x) = 12x - 8$

$f''\left(\frac{4}{3}\right) = 12\left(\frac{4}{3}\right) - 8$

$f''\left(\frac{4}{3}\right) = \frac{12}{1} \cdot \frac{4}{3} - 8$

$f''\left(\frac{4}{3}\right) = 16 - 8 = \boxed{8}$ min

$\frac{128}{27} = \frac{64}{9} \cdot \frac{3}{3}$

$\frac{128}{23} - \frac{192}{27} = \frac{-64}{27}$

$\frac{1}{4} = \frac{2}{8}$

$\frac{1}{8} + \frac{1}{4} \rightarrow \frac{1}{8} + \frac{1}{4} \cdot \frac{2}{2} = \frac{1}{8} + \frac{2}{8} = \frac{3}{8}$

C = (0,0) - max

$f(0) = 2(0)^3 - 4(0)^2$

$f(0) = 0$

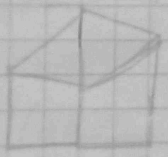
$f''(0) = 12(0) - 8$

$f''(0) = -8$ max

Medina Leon Nayely

una caja cerrada con base cuadrada no debe contener menos de $2.52 m^3$, el fondo cuesta $5.00 la tapa $2.50 y los lados $3.50 por m^2

indicar cuales son las dimensiones que minimizan el costo de la caja y determinar cual es el costo mínimo



$V = 2.52 m^3$

$V = x^2 y$

$x^2 y = 2.52 m^3$

$y = \frac{2.52 m^3}{x^2}$

$C = (1 \times 5) + (1 \times 2.50) + (4 \times 3.50)$

$C = 5 + 2.50 + 14.00$

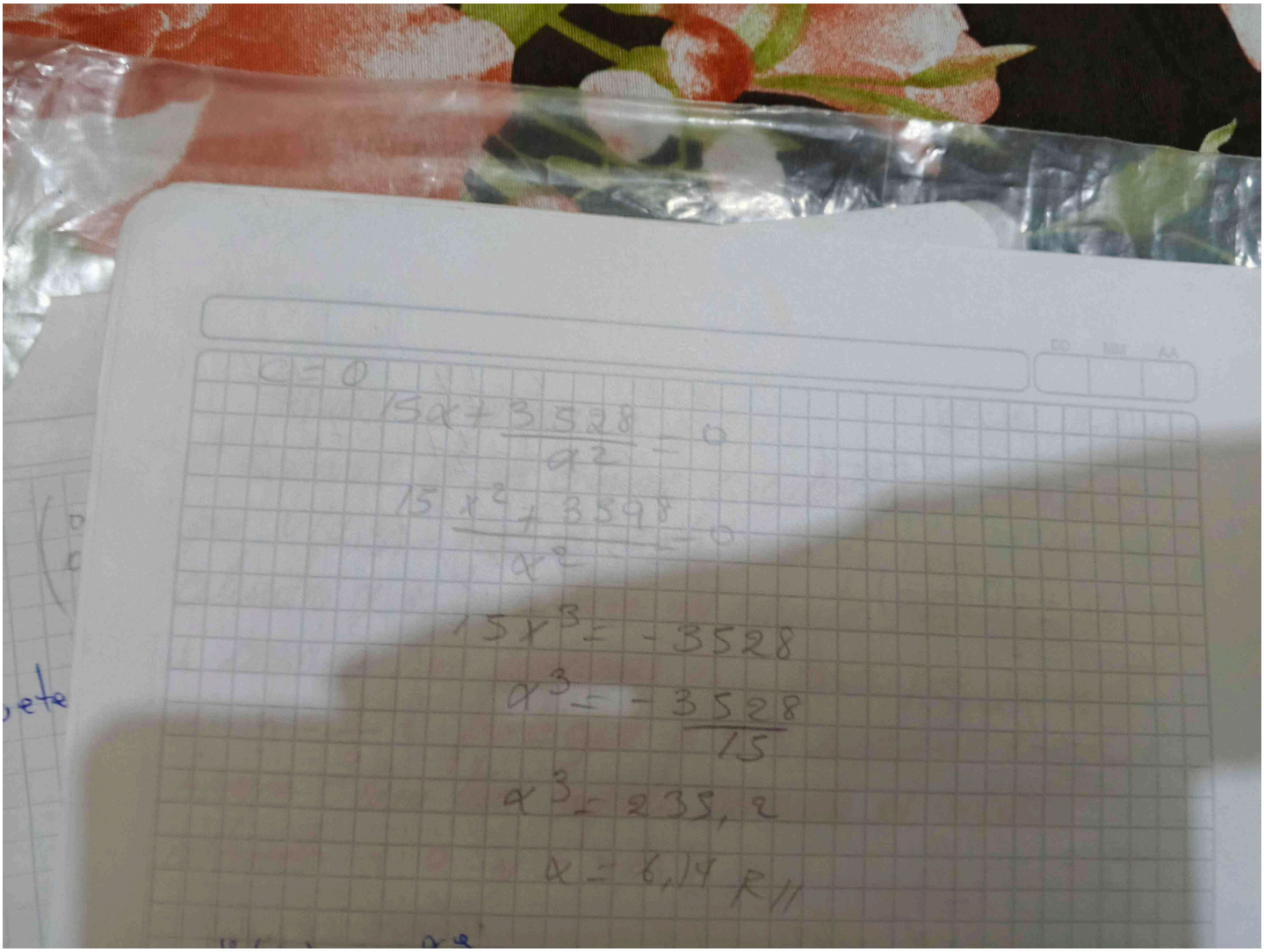
$C = 21.50$

$C = (x^2 \cdot 5) + (x^2 \cdot 2.5) + (xy)(3.5)(4)$

$C = 7.5x^2 + 14xy$

$C = 15x + 14y$

$15x + 14\left(\frac{2.52}{x^2}\right)$


C=0
15x + 3528/x² = 0
15x² + 3528 = 0
x²
15x³ = -3528
x³ = -3528/15
x³ = 235,2
x = 6,14 R//