

2 Halla cada integral si $\int_1^3 g(x) dx = -5$, $\int_1^7 f(x) dx = 3$, $\int_1^3 g(x) dx = 6$ y $\int_3^7 g(x) dx =$

a $\int_1^7 5(f(x) - \frac{1}{2}g(x)) dx$

b $\int_1^7 (-2f(x) + 6g(x)) dx$

c $\int_1^7 3(f(x) + g(x)) dx$

a $5 [3 - \frac{1}{2}(-5 - 3)]$

$5 [3 - \frac{1}{2}(-8)]$

$5 [3 + 4]$

$5 \cdot 7$

$= 35$

b $-2 \int_1^7 f(x) dx + 6 \int_1^7 g(x) dx$

$= -2 \cdot 3 + 6(-8)$

$= -6 - 48$

$= -54$

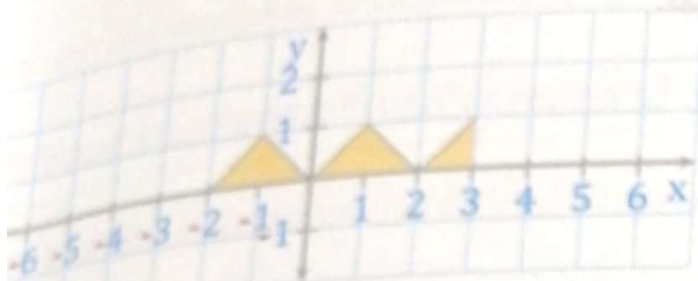
c $\int_1^7 3(f(x) + g(x)) dx$

$= 3 \cdot 3 + 6(-8)$

$= 9 - 48$

$= -39$

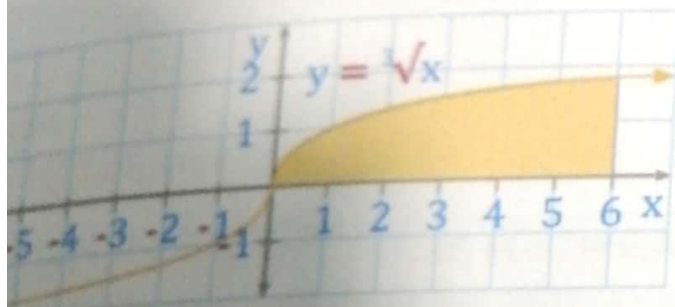
Escribe como un integral posible la integral.



$$\int_2^3 x dx$$

$$= \frac{x^2}{2} \Big|_2^3 = \frac{3^2}{2} - \frac{2^2}{2} = \frac{9-4}{2} = \frac{5}{2}$$

$$= 2.5 \times 5 = 12.5$$



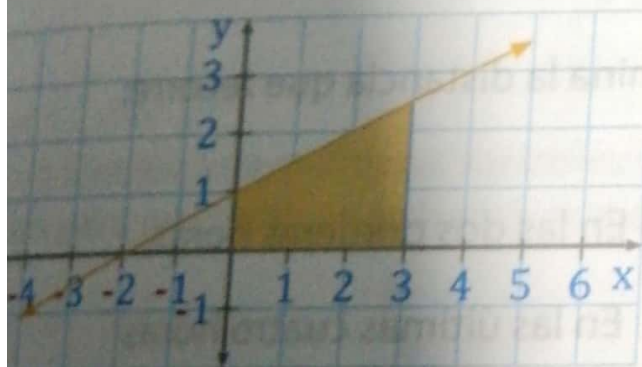
$$\int_0^6 \sqrt[3]{x}$$

$$= \int_0^6 x^{1/3} dx = \frac{1}{3} + 1 = \frac{1}{3} + \frac{3}{3} = \frac{4}{3}$$

$$= \int_0^6 \frac{x^{4/3}}{4} = \int_0^6 \frac{3x^{4/3}}{4} = 3 \sqrt[3]{\frac{x^4}{4}}$$

$$= \int_0^6 \sqrt[3]{x^4} \Big|_0^6 = \frac{3 \sqrt[3]{6^4}}{4} - \frac{3 \sqrt[3]{0^4}}{4} = \frac{3 \cdot 11}{4} = \frac{6}{4}$$

$$= \frac{33}{4} - \frac{0}{4} = \frac{33}{4} = 8.25$$



$$\int_0^3 \frac{x}{2} + 1$$

$$= \frac{x^2}{2} = \frac{x^2}{4} \Big|_0^3 = \frac{3^2}{1} = \frac{02}{4}$$

$$= \frac{9}{4} = 2.25$$