## EJERCICIO H2BE3063:

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$$\int \frac{\sqrt[3]{x} - 2\sqrt{x} + 5}{\sqrt{x^3}}\,dx =$$

$$= \int \frac{\sqrt[3]{x}}{\sqrt{x^3}}\,dx - \int \frac{2\sqrt{x}}{\sqrt{x^3}}\,dx + \int \frac{5}{\sqrt{x^3}}\,dx =$$

$\frac{1}{3} - \frac{3}{2} = \frac{2-9}{6}$

$$= \int x^{1/3} \cdot x^{-3/2}\,dx - \int \frac{2\sqrt{x}}{x\sqrt{x}}\,dx + 5\int x^{-3/2}\,dx =$$

$$= \int x^{-7/6}\,dx - 2\int \frac{1}{x}\,dx + 5\int x^{-3/2}\,dx =$$

$$= \frac{x^{-\frac{7}{6}+1}}{-\frac{7}{6}+1} - 2\ln x + 5 \cdot \frac{x^{-\frac{3}{2}+1}}{-\frac{3}{2}+1} =$$

$$= \frac{x^{-\frac{1}{6}}}{-\frac{1}{6}} - 2\ln x + 5\,\frac{x^{-\frac{1}{2}}}{-\frac{1}{2}} =$$

$$= -\frac{6}{\sqrt[6]{x}} - 2\ln x - \frac{10}{\sqrt{x}} =$$

$$= -\frac{6}{\sqrt[6]{x}} \cdot \frac{\sqrt[6]{x^5}}{\sqrt[6]{x^5}} - 2\ln x - \frac{10\sqrt{x}}{\sqrt{x}\sqrt{x}} =$$

$$= \boxed{\frac{-6\sqrt[6]{x^5}}{x} - 2\ln x - \frac{10\sqrt{x}}{x} + C}$$