

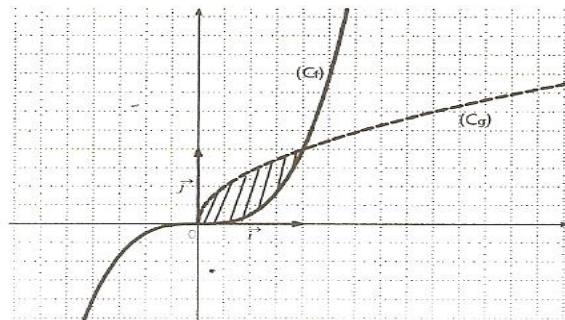
$$g(x) = \sqrt{x}, \quad f(x) = x^3$$

$$\forall x \in \mathbb{R} \quad f'(x) = 3x^2 \quad (1)$$

x	$-\infty$	0	$+\infty$
f'(x)	+	0	+
f(x)	$-\infty$	0	$+\infty$

$$\forall x \in]0, +\infty[\quad g'(x) = \frac{1}{2\sqrt{x}}$$

x	$-\infty$	0	$+\infty$
g'(x)	$+\infty$	+	
g(x)	0		$+\infty$



$$s = \int_0^1 (g(x) - f(x)) dx \cdot 4 \text{ cm}^2 \quad (3)$$

$$= \int_0^1 (\sqrt{x} - x^3) dx \cdot 4 \text{ cm}^2$$

$$= \left[\frac{2}{3} x \sqrt{x} - \frac{x^4}{4} \right]_0^1 \cdot 4 \text{ cm}^2$$

$$s = \frac{5}{3} \text{ cm}^2$$

إذن :

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