

$$f(x) = x^2 + 4x$$

MS123



Derivada de x^n : $n x^{n-1}$

Integral de x^n : $\frac{x^{n+1}}{n+1}$

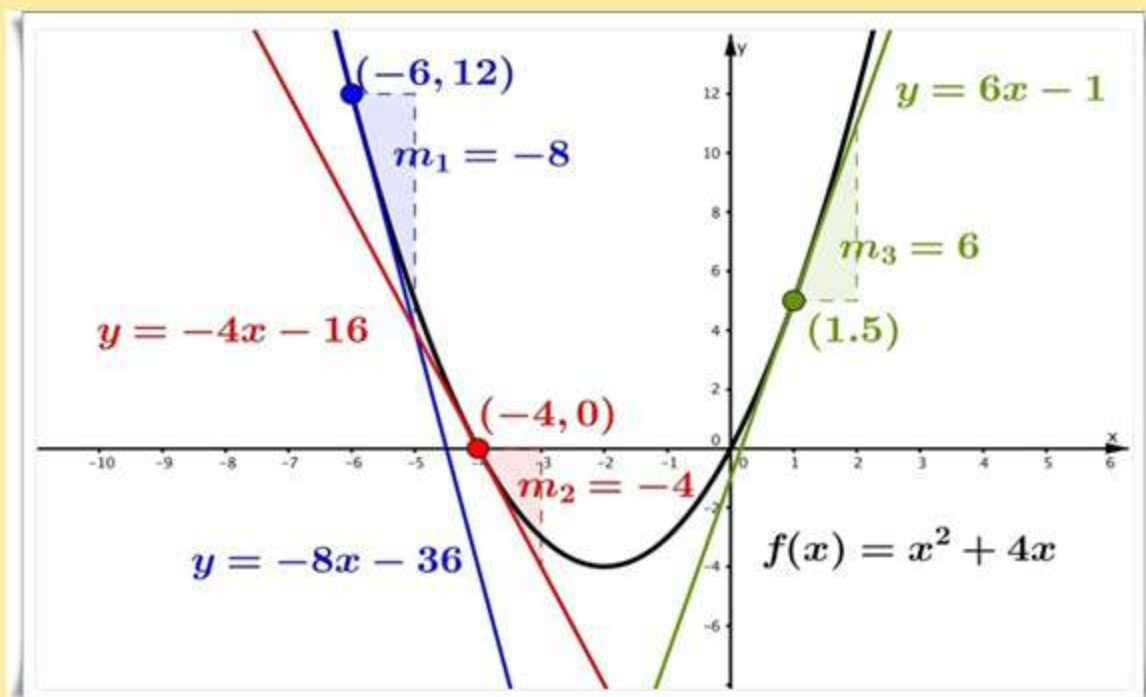
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MS123



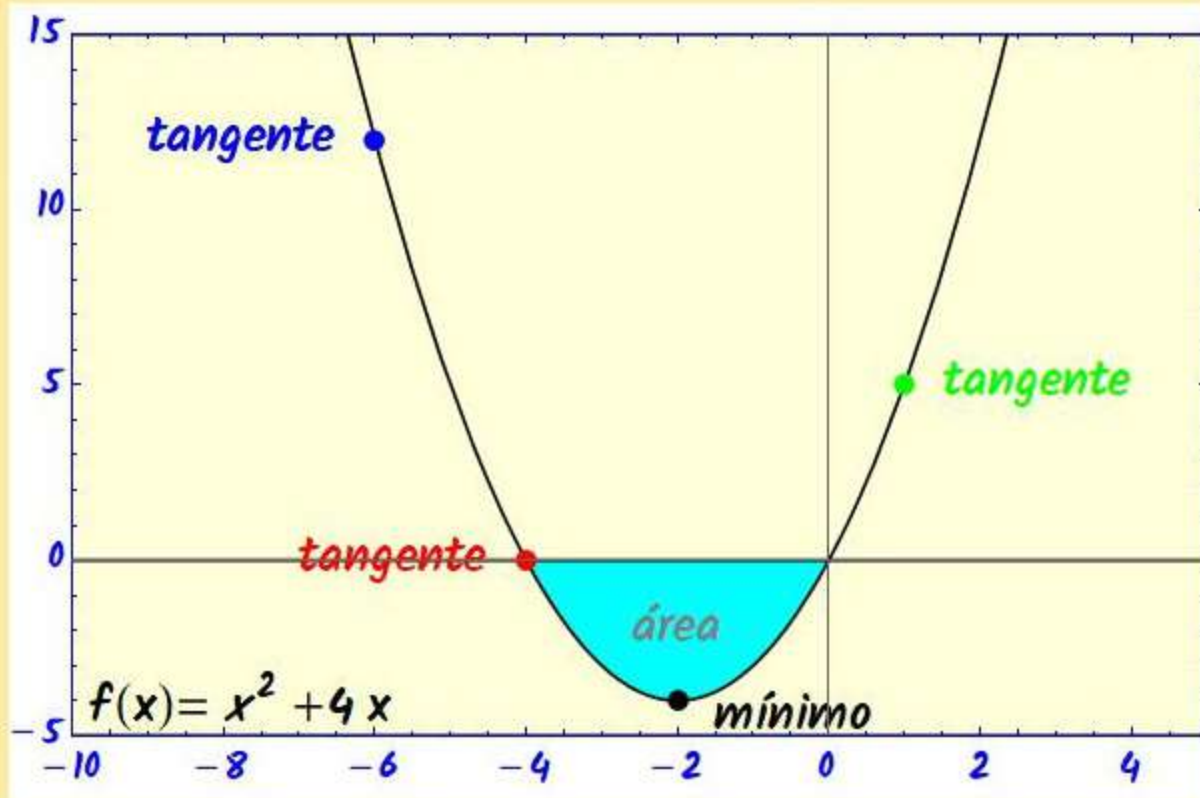
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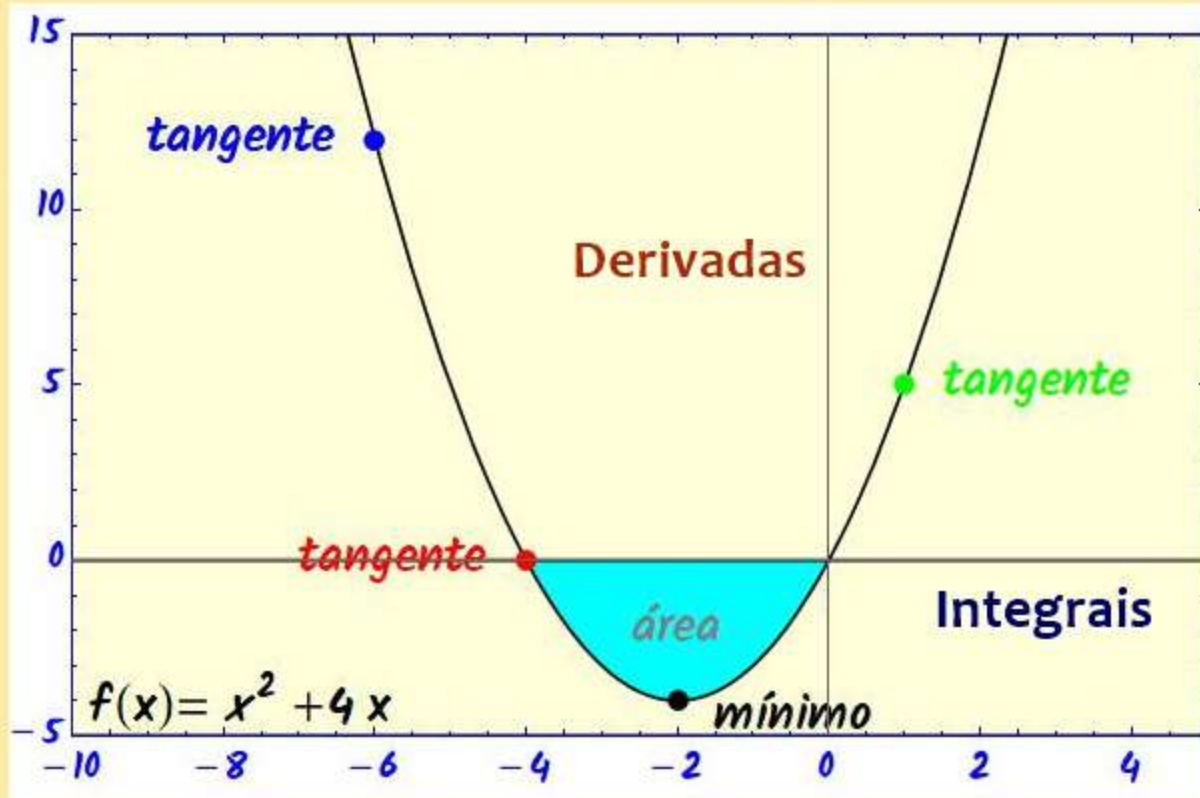
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m5123



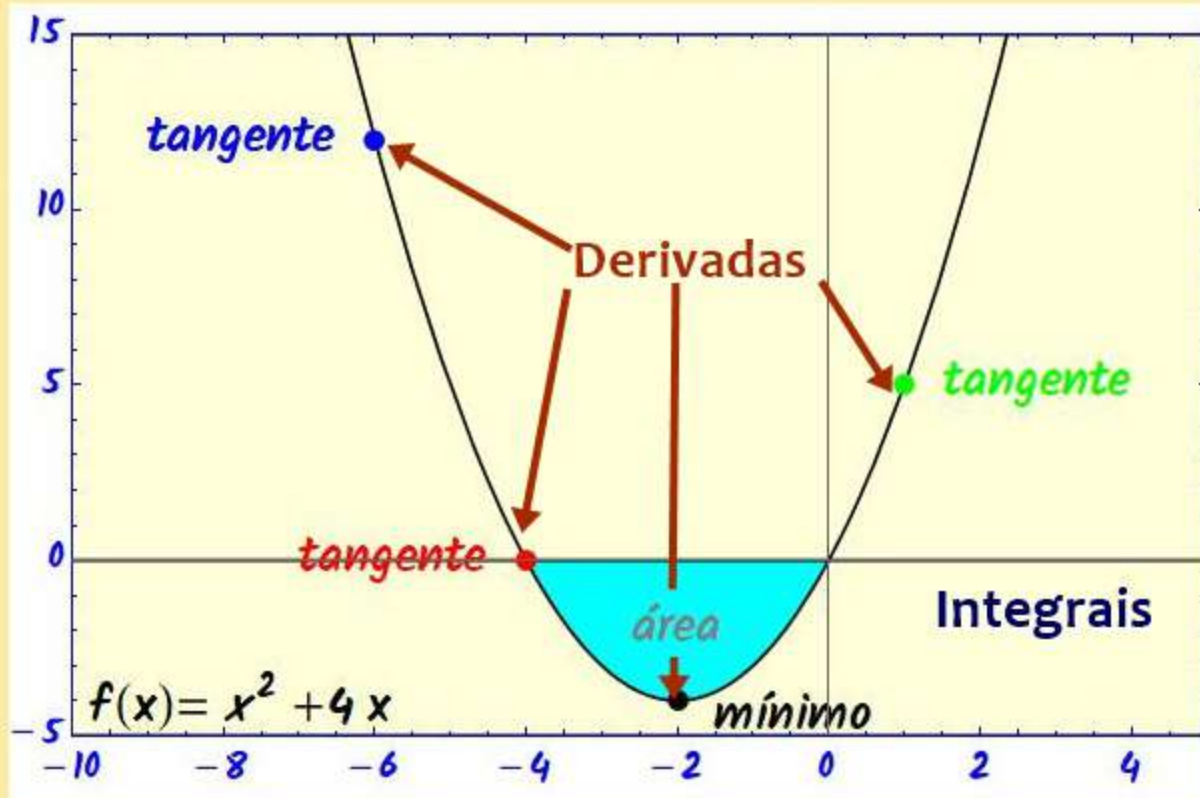
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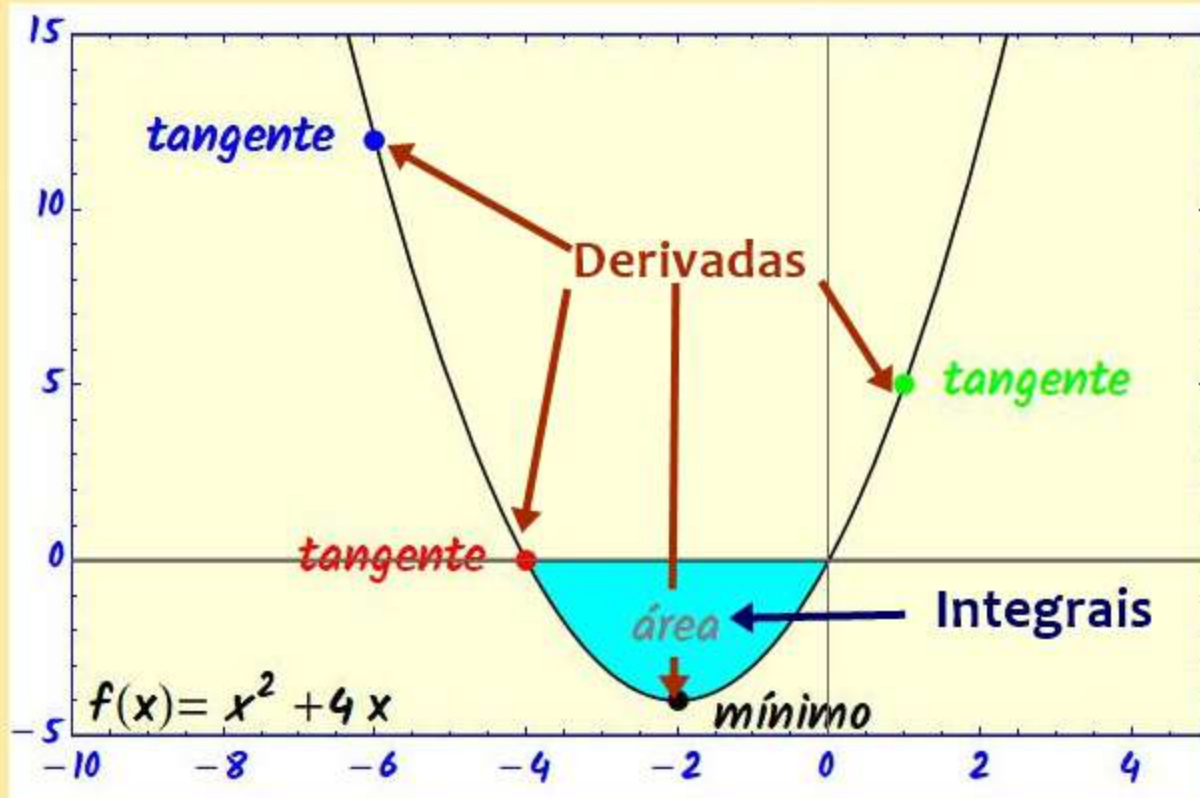
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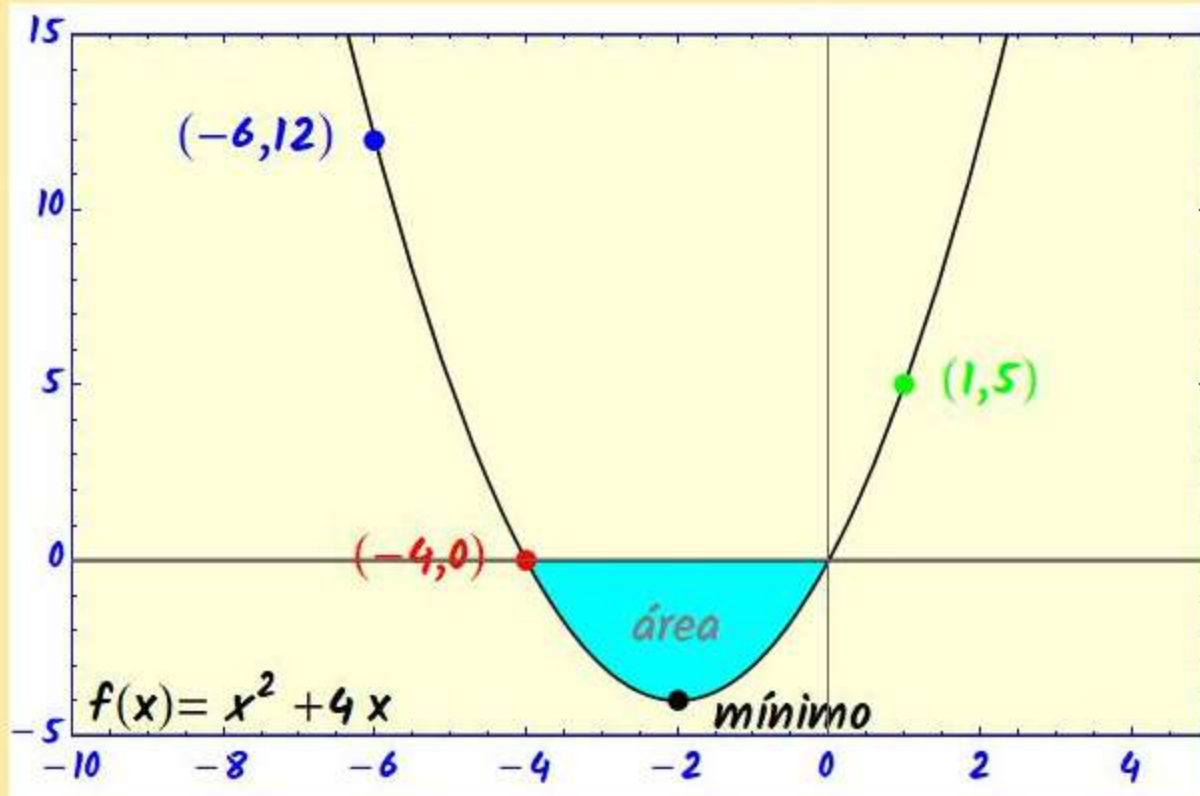
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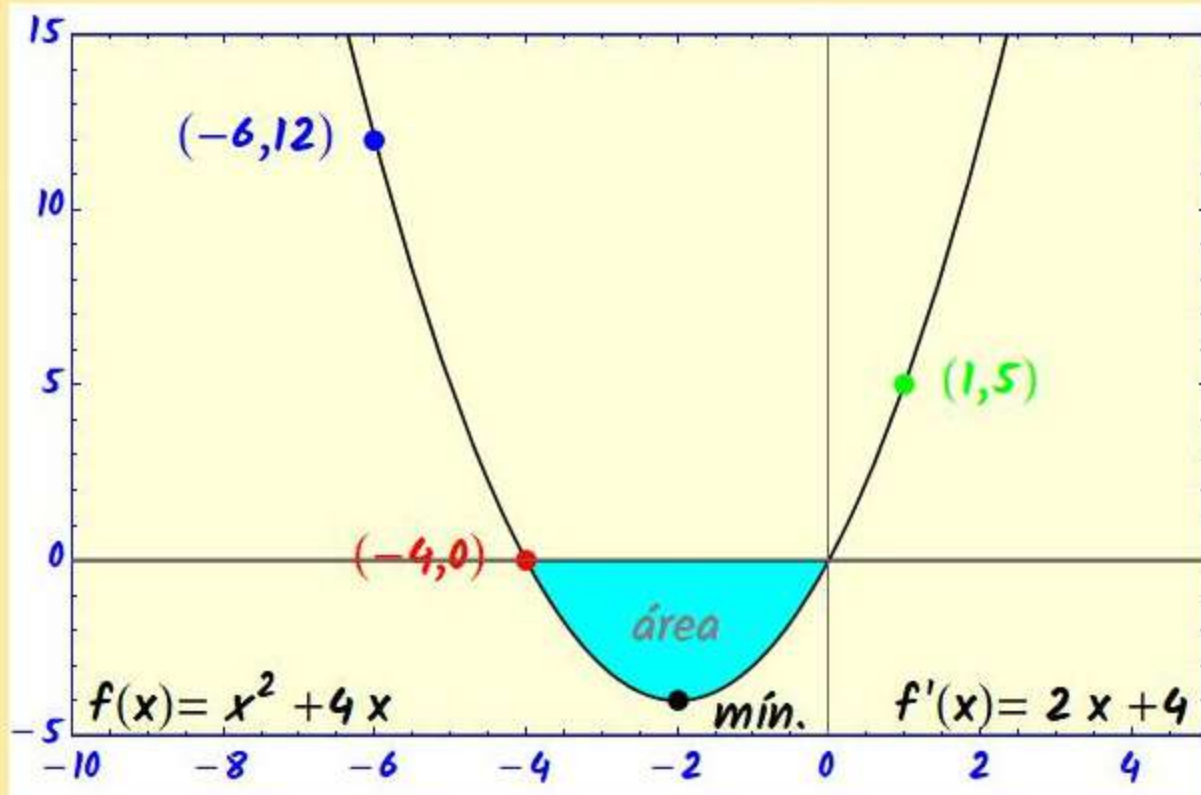
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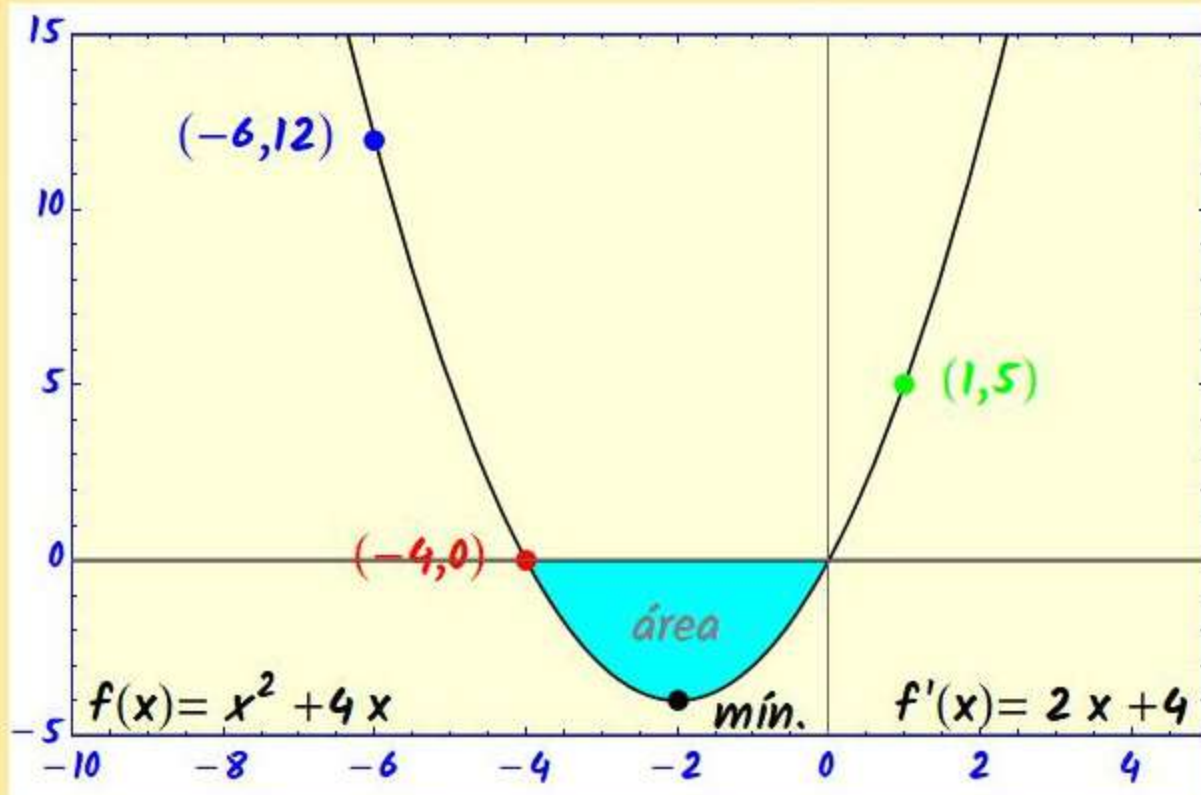


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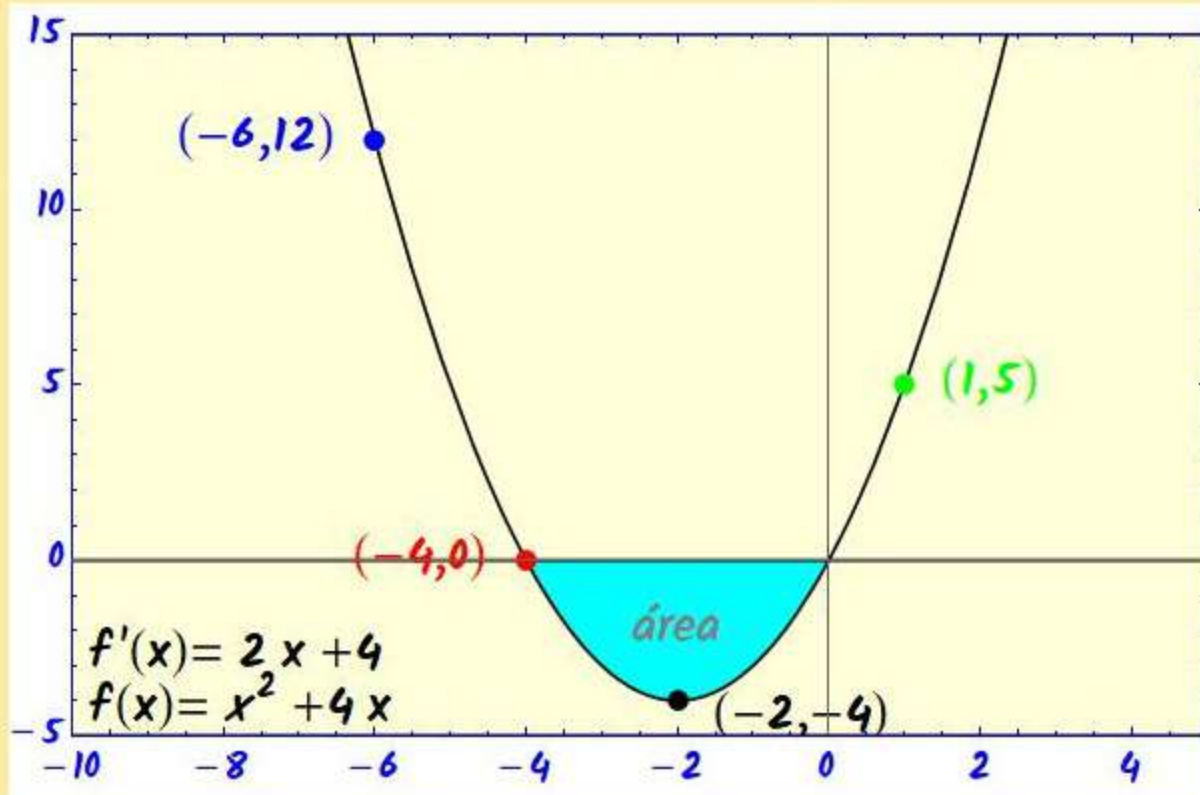


$f'(x) = 0$ implica $x = -2$ então $x_{\min} = -2$



$$f(x) = x^2 + 4x$$

MS123

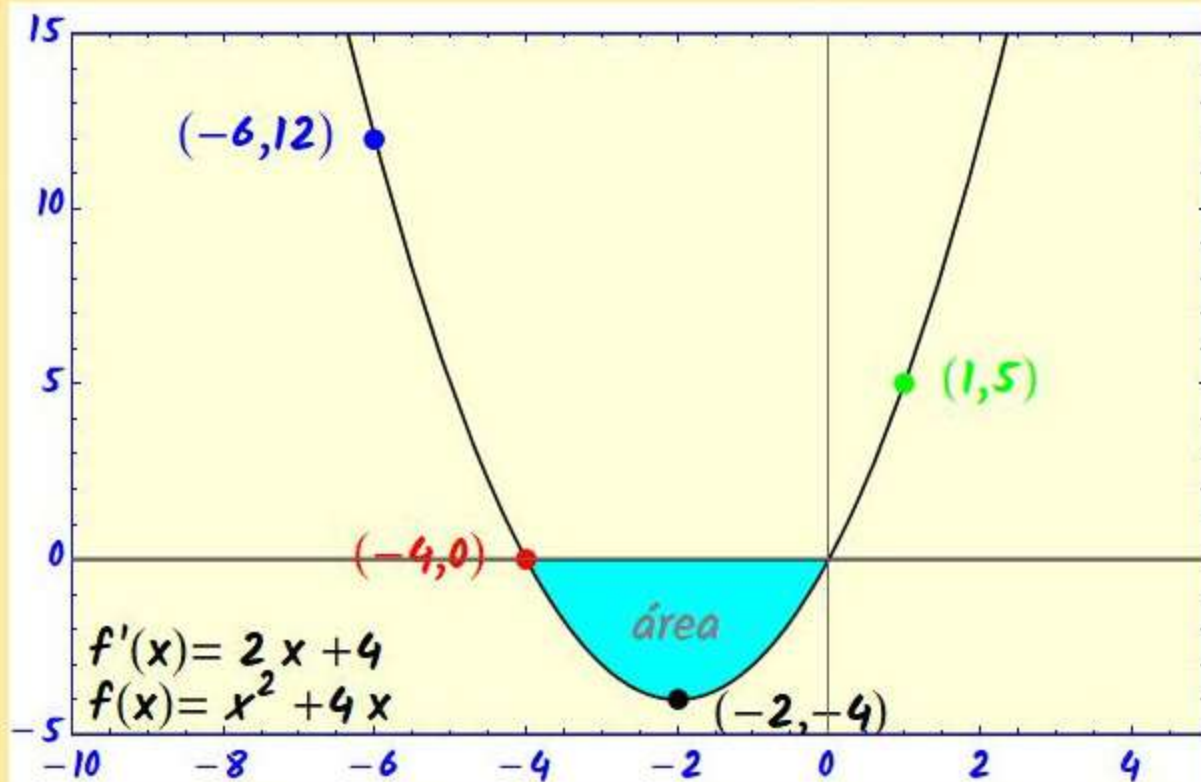


$$f(x) = x^2 + 4x$$

m5123

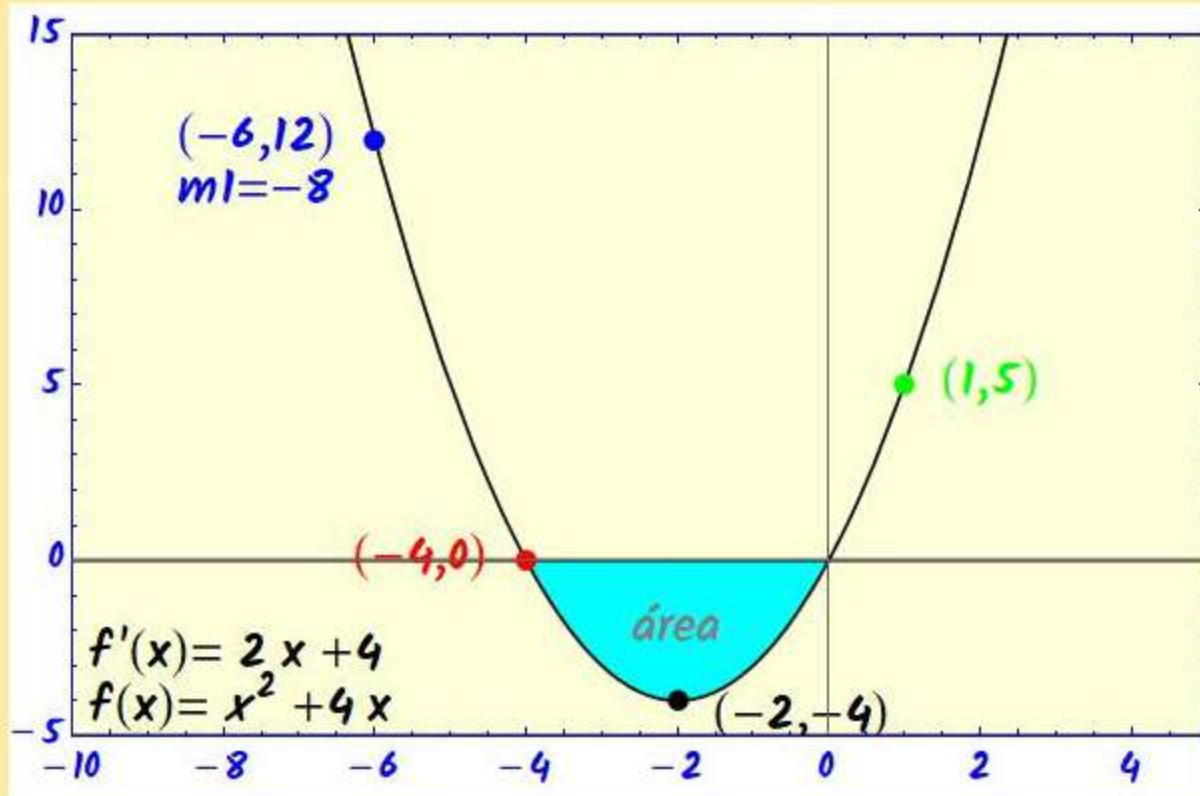


$$f'(-6) = -12 + 4 = -8 \text{ implica } m1 = -8$$



$$f(x) = x^2 + 4x$$

MS123

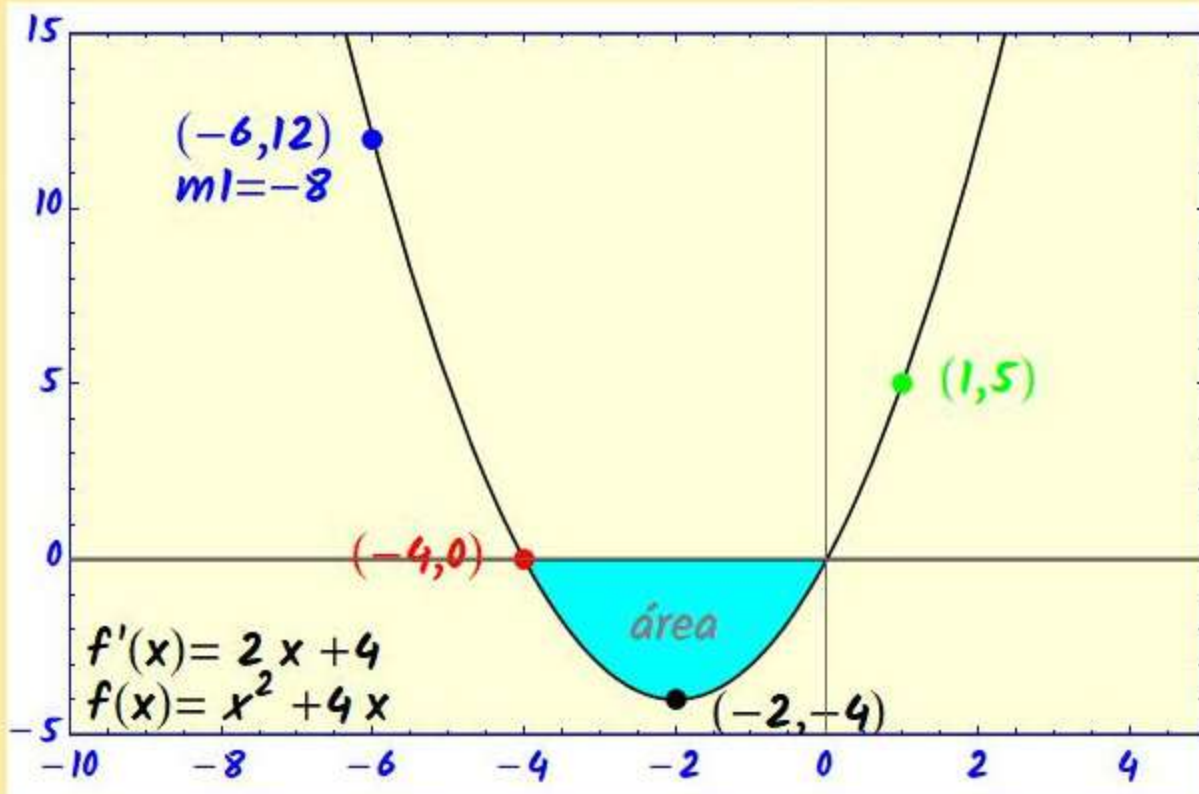


$$f(x) = x^2 + 4x$$

m5123



$$f'(-4) = -8 + 4 = -4 \text{ implica } m_2 = -4$$

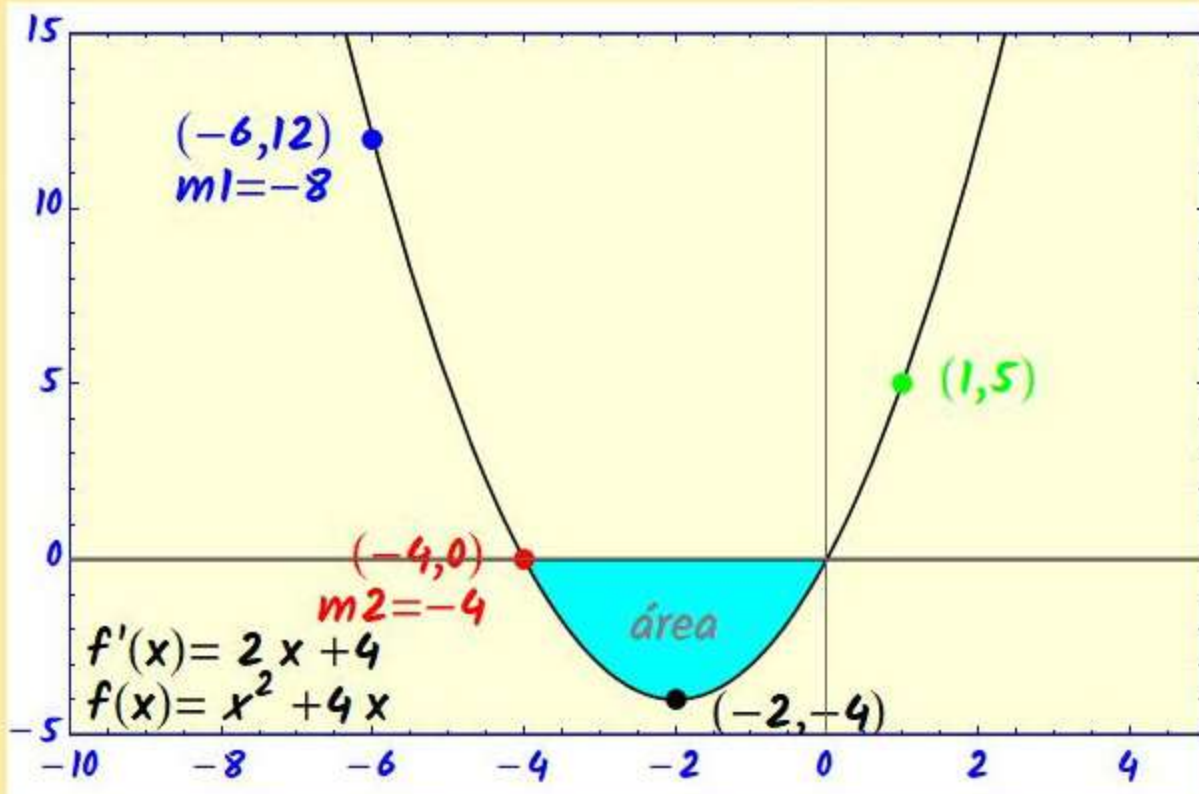


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m5123

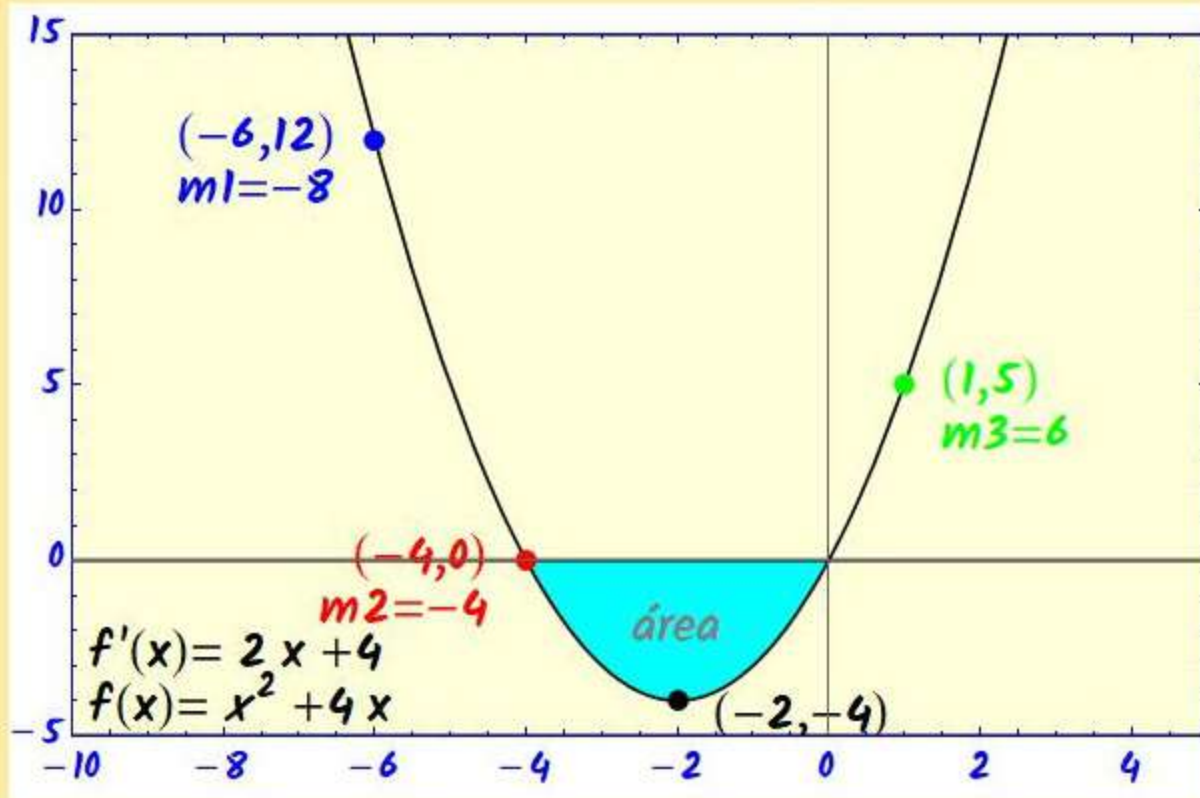


$$f'(1) = 2 + 4 = 6 \text{ implica } m3 = 6$$



$$f(x) = x^2 + 4x$$

m5123

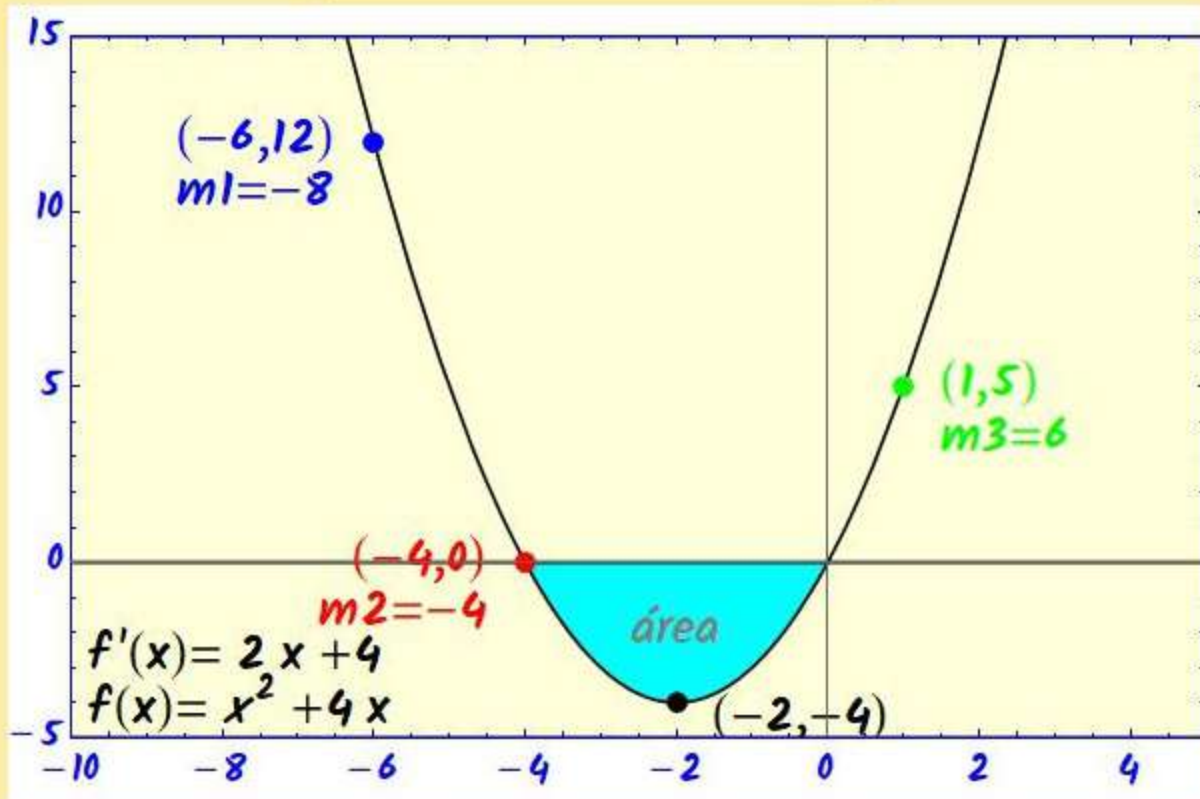


$$f(x) = x^2 + 4x$$

MS123



$$i(x) = \frac{x^3}{3} + 4 \frac{x^2}{2} = \frac{x^3}{3} + 2x^2$$

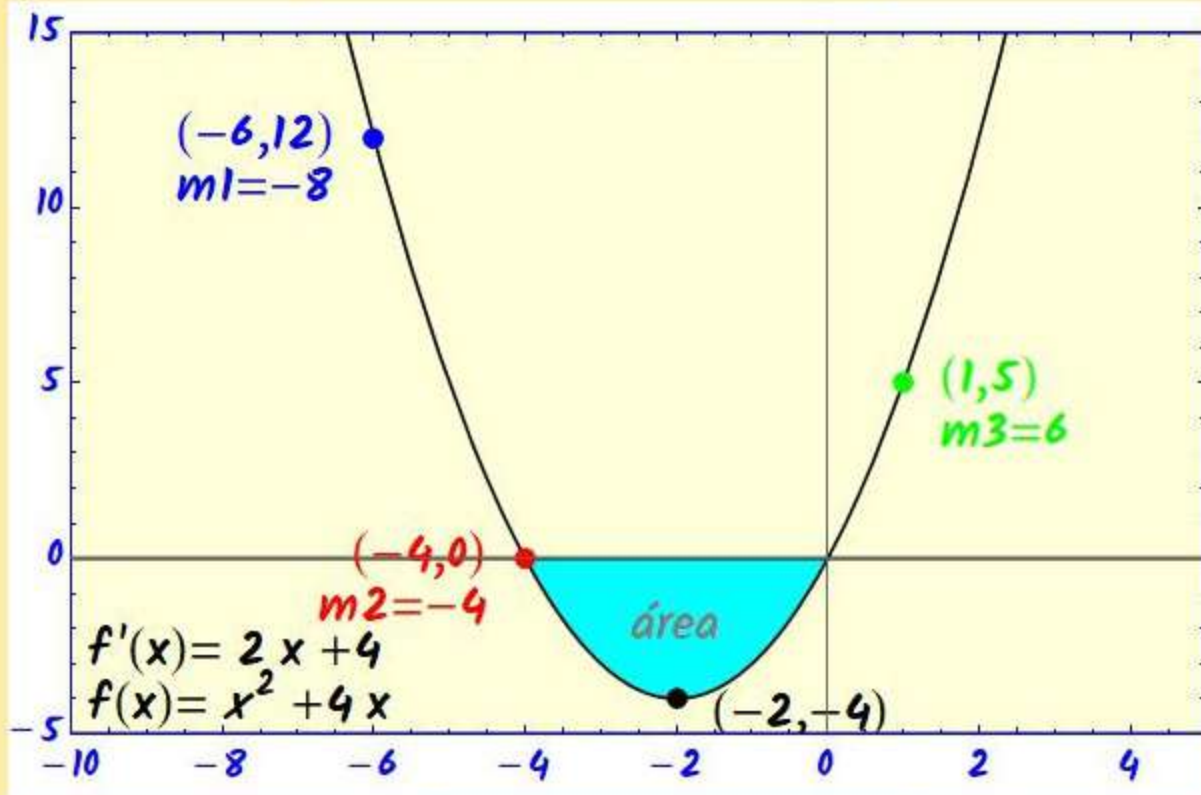


$$f(x) = x^2 + 4x$$

MS123



$$i(x) = \frac{x^3}{3} + 4 \frac{x^2}{2} = \frac{x^3}{3} + 2x^2$$



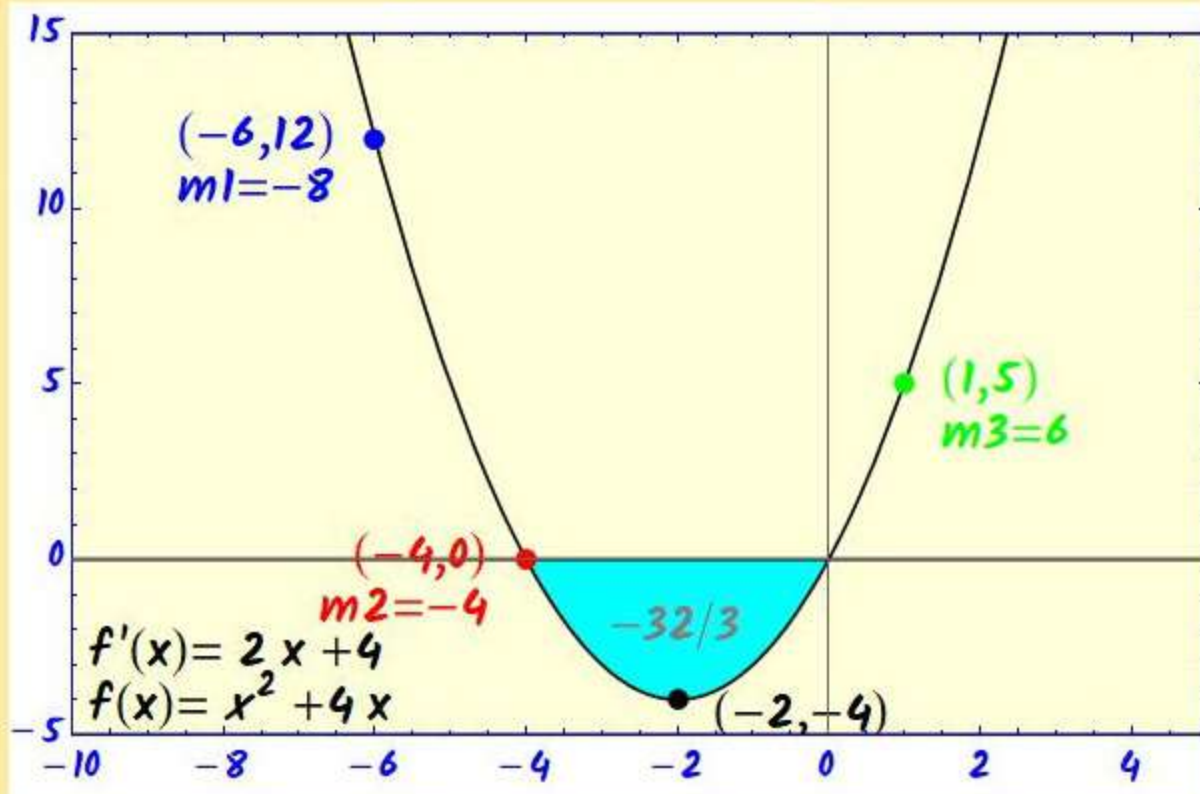
$$i(0) - i(-4) = -\frac{32}{3}$$

$$f(x) = x^2 + 4x$$

MS123



$$i(x) = \frac{x^3}{3} + 2x^2$$



$$f'(x) = 2x + 4$$