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(1072)

$f(x)$ היא הפונקציה $\ln 5 - 2 = \frac{+6}{-3} = \frac{8-2}{1-4} = \frac{-6}{-3} = 2$ שטח הריבוע
משוואת הריבוע $y = -2x + 6$
 $(0,0)$ היא נקודה ב $f(x)$

$$f(x) = \int y dx = \int (-2x + 6) dx = -x^2 + 6x + C$$

$$f(0) = 0 = -0^2 + 6 \cdot 0 + C \rightarrow f(x) = -x^2 + 6x$$

$$16 = -x^2 + 6x \rightarrow x = 8, 2$$

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① $f'(x) = 0 = -4x + 20 \rightarrow x = 5$

בנקודה הזו, $f'(x)$ היא

② $f(x) = \int f'(x) dx = \int (-4x + 20) dx = -2x^2 + 20x + C$

$$f(5) = 0 = -50 + 100 + C \rightarrow C = -50 \quad f(x) = -2x^2 + 20x - 50$$

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$$f'(x) = 0 = 4x^3 - 32 \rightarrow x = 2 \quad f(x) = \int (4x^3 - 32) dx = x^4 - 32x + C$$

$$f(2) = -18 = 16 - 64 + C \rightarrow C = 0 \quad f(x) = x^4 - 32x$$

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$$f'(x) = 0 = 3x^2 - 12x + 9$$

$$x = 3 \rightarrow \min$$

$$x = 1 \rightarrow \max$$

$$f(x) = \int (3x^2 - 12x + 9) dx = x^3 - 6x^2 + 9x + C$$

$$f(1) = 27 = 1 - 6 + 9 + C \rightarrow C = 23 \quad f(x) = x^3 - 6x^2 + 9x + 23$$

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$$f'(x) = 0 = 3x^2 - 3 \rightarrow x = 1$$

$$x = 1 \rightarrow \min$$

$$x = -1 \rightarrow \max$$

$$f(x) = \int (3x^2 - 3) dx = x^3 - 3x + C$$

$$f(1) = 15 = 1 - 3 + C \rightarrow C = 17 \quad f(x) = x^3 - 3x + 17 \quad | \quad f(-1) = 19$$

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① $f'(x) = 0 = 2x - 4 \rightarrow x = 2$

min

$$f(x) = \int (2x - 4) dx = x^2 - 4x + C$$

$$f(4) = 10 = 16 - 16 + C \rightarrow C = 10 \quad f(x) = x^2 - 4x + 10$$

היך, הווקטור, וקטור, קטור

② $f(2) = 2^2 - 4 \cdot 2 + 10 = 6$

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① $f'(x) = 0 = 2x - 6 \rightarrow x = 3$

min

$$f(x) = \int (2x - 6) dx = x^2 - 6x + C$$

$$f(3) = -1 = 9 - 18 + C \rightarrow C = 8 \quad f(x) = x^2 - 6x + 8$$

② $g(x) = \int (6x + 1) dx = 3x^2 + x + B$

$$g(3) = -1 = 27 + 3 + B \rightarrow B = -31$$

$$g(x) = 3x^2 + x - 31$$

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(1072)

① $f'(x) = 2 = 3x - 4 \rightarrow x = 2$

$$y = 2x + 1 = 2 \cdot 2 + 1 = 5 \quad (2, 5)$$

② $f(x) = \int (3x - 4) dx = 1.5x^2 - 4x + C$

$$f(2) = 5 = 6 - 8 + C \rightarrow C = 7$$

$$f(x) = 1.5x^2 - 4x + 7$$