

$$\operatorname{tg}'x = \frac{1}{\cos^2 x}$$

$$\cos'x = -\sin x$$

$$\sin'x = \cos x$$

$$f(x) = 7\sin x - \cos 2x - 3 \quad .1$$

$$f'(x) = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \quad \blacklozenge$$

$$f(x) = \sin x + \frac{1}{2}\cos 2x - 3 \quad .2$$

$$f'(x) = \underline{\hspace{2cm}} - \underline{\hspace{2cm}} \quad \leftarrow \quad f'(x) = \underline{\hspace{2cm}} - \frac{1}{2} \underline{\hspace{2cm}} \quad \blacklozenge$$

$$f(x) = \sin x - \cos^2 x - 1 \quad .3$$

$$f'(x) = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \quad \leftarrow \quad \sin 2x = 2\sin x \cos x \text{ לפי הזהות} \quad f'(x) = \underline{\hspace{2cm}} + 2 \underline{\hspace{2cm}} \quad \blacklozenge$$

$$f(x) = \sin^2 x - \cos x - 1 \quad .4$$

$$f'(x) = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \quad \leftarrow \quad f'(x) = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \quad \blacklozenge$$

$$f(x) = \cos^4 x - \sin^4 x - 2\cos x + 1 \quad .5$$

$$f(x) = (\underline{\hspace{2cm}} - \underline{\hspace{2cm}}) \overbrace{(\underline{\hspace{2cm}} + \underline{\hspace{2cm}})}^1 - 2 \underline{\hspace{2cm}} + \underline{\hspace{2cm}} \quad \text{תחילה נפשט את הפונקציה} \quad \blacklozenge$$

$$\leftarrow \cos^2 x - \sin^2 x = \cos 2x \text{ לפי הזהות} \quad f(x) = (\underline{\hspace{2cm}} - \underline{\hspace{2cm}}) - \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

$$f'(x) = - \underline{\hspace{2cm}} + 2 \underline{\hspace{2cm}} \quad \leftarrow \quad f(x) = \underline{\hspace{2cm}} - 2 \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

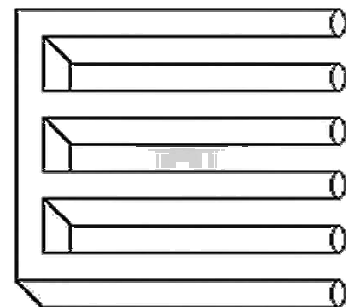
$$f(x) = \frac{1}{\sin x} + \frac{1}{\cos x} \quad .6$$

$$f'(x) = - \frac{\underline{\hspace{2cm}}}{\underline{\hspace{2cm}}} + \frac{\underline{\hspace{2cm}}}{\underline{\hspace{2cm}}} \quad \leftarrow \quad \left(\frac{1}{f(x)} \right)' = \frac{f'(x)}{f^2(x)} \quad \text{תזכורת:} \quad \blacklozenge$$

תשובות: .1 $7\cos x + 2\sin x$.2 $\cos x - \sin 2x$.3 $\cos x + \sin 2x$.4 $\sin 2x + \sin x$

$$.5 \quad -2\sin 2x + 2\sin x \quad .6 \quad -\frac{\cos x}{\sin^2 x} + \frac{\sin x}{\cos^2 x}$$

עבודה נעימה



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