



Osama salim

1. Find the function $f(x)$ satisfying

جد الدالة $f(x)$ التي تحقق

the given condition: $f'(x) = 3e^{-x}$, $f(0) = 3$ الشروط المعطاة

a) $f(x) = 6 - 3e^{-x}$

b) $f(x) = 3 + 6e^{-x}$

c) $f(x) = 2 - e^{-x}$

d) $f(x) = 6 + 3e^{-x}$

2. Find the function $f(t)$ satisfying

جد الدالة $f(t)$ التي تحقق الشروط

the given condition: $f''(t) = 2 + 2t$, $f'(0) = 2$, $f(3) = 2$ المعطاة

a) $\frac{1}{3}t^3 + t^2 + 2t - 22$

c) $\frac{1}{3}t^3 + t^2 + 2t + 22$

b) $t^3 + t^2 + 2t - 22$

d) $\frac{1}{3}t^3 + \frac{1}{2}t^2 + 2t - 22$

3. For a function $f(x)$ such that the point $(-1,1)$ is on the graph of $y = f(x)$, the slope of the tangent line at $(-1,1)$ is 2

and $f''(x) = 6x + 4$ find $f(1)$

a) $f(1) = 3$

c) $f(1) = 6$

b) $f(1) = 9$

d) $f(1) = -1$

