Lesson 5-1
(Antiderivative)

Name: -

Q1

Find the general antiderivative. اوجد الدالة الاصلية

$$\int (x^6 - 3)dx$$

a) $\frac{x^7}{7} - 3x + c$

b) $\frac{x^6}{6} - 3x + c$

c) $6x^7 - 3x + c$

d) $6x^5 - 3x^2 + c$

Q9 Find the general antiderivative. اوجد الدالة الاصلية

$$\int \frac{2x}{x^2 + 4}\, dx$$

a) $2\,x^2(x^2 + 4) + c$

b) $\ln|x^2 + 2x| + c$

c) $(x^2 + 4)^2 + c$

d) $\ln|x^2 + 4| + c$

Q13 Find the general antiderivative. اوجد الدالة الاصلية

$$\int (2\sin x - \frac{1}{1 + x^2})\, dx$$

a) $-2\cos x - \tan^{-1}(1 + x^2) + c$

b) $-2\cos x - \tan^{-1} x + c$

c) $\sin^2 x - \tan^{-1} x + c$

d) $2\cos x - \tan x + c$