

$$M' = 12 - 8v - v^2$$

اذا كانت دالة الايراد الجدي
او ص دالة الايراد الكلي

$$M = \int (12 - 8v - v^2) dv$$

$$M = \int 12 dv - \int 8v dv - \int v^2 dv$$

$$M = 12v - 8 \frac{v^2}{2} - \frac{v^3}{3}$$

$$M = 12v - 4v^2 - \frac{v^3}{3}$$

اذا كانت دالة التكلفة الجدي، تكلفة الوحدة، $T' = 1000 - 6v$ ، تكلفة الكلية

$$T = \int (1000 - 6v) dv$$

$$T = 1000v - 6 \frac{v^2}{2}$$

$$T = 1000v - 3v^2$$

$$\int_1^4 \left(\frac{1}{\sqrt{x}} + \sqrt{x} \right) dx$$

او ص التكاليف

$$\int_1^4 (x^{-1/2} + x^{1/2}) dx$$

$$\frac{x^{1/2}}{1/2} + \frac{x^{3/2}}{3/2} \Big|_1^4$$

$$\left(\frac{4^{1/2}}{1/2} + \frac{4^{3/2}}{3/2} \right) - \left(\frac{1^{1/2}}{1/2} + \frac{1^{3/2}}{3/2} \right)$$

$$(4 + 5.3) - (2 + 0.7)$$

$$9.3 - 2.7 = 6.6$$

$$\int_2^4 (13 - 4x) dx$$

اوپر بتلا مل

$$13x - 2x^2 \Big|_2^4$$

$$[13(4) - 2(4)^2] - [13(2) - 2(2)^2]$$

$$20 - 18 = 2$$

$$\int_0^2 (3 + 2x) dx$$

اوپر بتلا مل

$$3x + x^2 \Big|_0^2$$

$$[3(2) + (2)^2] - [3(0) + (0)^2]$$

$$10 - 0 = 10$$

$$\int_0^1 (2x - 1) dx$$

اوپر بتلا مل

$$x^2 - x \Big|_0^1$$

$$[(1)^2 - 1] - [(0)^2 - 0]$$

$$0 - 0 = 0$$

$$\int_{-1}^1 (x^2 + 3)(x - 2) dx$$

اوجد التكامل

$$\int_{-1}^1 (x^3 - 2x^2 + 3x - 6) dx$$

$$\left. \frac{x^4}{4} - \frac{2x^3}{3} + \frac{3x^2}{2} - 6x \right|_{-1}^1$$

$$\left(\frac{1^4}{4} - \frac{2(1)^3}{3} + \frac{3(1)^2}{2} - 6(1) \right) - \left(\frac{(-1)^4}{4} - \frac{2(-1)^3}{3} + \frac{3(-1)^2}{2} - 6(-1) \right)$$

$$\left(\frac{1}{4} + \frac{2}{3} + \frac{3}{2} - 6 \right) - \left(\frac{1}{4} + \frac{2}{3} + \frac{3}{2} + 6 \right)$$

$$\int_{-1}^0 \frac{(x^3 - 27)}{(x - 3)} dx$$

اوجد التكامل

$$\int_{-1}^0 \frac{(x-3)(x^2+3x+9)}{(x-3)} dx$$

$$\int_{-1}^0 (x^2 + 3x + 9) dx$$

$$\left. \frac{x^3}{3} + \frac{3x^2}{2} + 9x \right|_{-1}^0$$

$$\left(\frac{0^3}{3} + \frac{3(0)^2}{2} + 9(0) \right) - \left(\frac{(-1)^3}{3} + \frac{3(-1)^2}{2} + 9(-1) \right)$$

$$0 - \left(-\frac{1}{3} + \frac{3}{2} - 9 \right)$$

$$- \left(\frac{-47}{6} \right) = \frac{47}{6}$$