

UJIAN AKHIR MATIKULASI SESI KE DUA

Program : Magister Manajemen
Mata Kuliah : Matematika dan Statistika
Dosen Pengampu : Ananda Sabil Hussein, Ph.D

Kerjakan semua soal dibawah ini.

1. You are given the opportunity of investing in one of the three projects. Projects A, B and C require initial outlays of \$20000, \$30000 and \$100000 and are guaranteed to return \$25000, \$37000 and \$117000 respectively in three years time. Which of these projects would you invest in if the market rate is 5% compounded annually?

2. Given the quadratic supply and demand functions

$$P = Q^2 + 2Q + 12$$

$$P = -Q^2 - 4Q + 68$$

Determine the equilibrium price and quantity

3. The fixed costs of producing a good are 100 and the variable costs are $2 + \frac{Q}{10}$ per unit. Find the expression for TC and MC
Evaluate MC at $Q = 30$ and estimate the change in TC brought about by a two unit increase in output from a current level of 30 units.
At what level of output does $MC = 22$
4. Buat lah analisa dari tabel dibawah ini:
 - a. Buatlah persamaan regresinya
 - b. Apakah model persamaan regresi yang dibentuk fit
 - c. Rumuskan hipotesanya dan hipotesa mana saja yang diterima
 - d. Berapa besar pengaruh dari variabel lain diluar variabel yang diteliti?

Variabel	<i>beta</i>	Sig.	Keterangan
	(Standardized Coefficiencie)		
X1	0,613	0,003	
X2	0,265	0,047	
X3	-0,007	0,966	
X4	-0,123	0,368	
X5	-0,305	0,161	
A = 0,05 R = 0,475 Koefisien Determinasi (R^2) = 0,225 F-Hitung = 3,724 F-Tabel = 2,358 Sig.F = 0,005 t-tabel = 1,98			