

**MAT 321 MATEMATİKSEL DENKLEMLERİN  
BİLGİSAYAR DESTEKLİ ÇÖZÜMLERİ I  
ARASINAV CEVAP ANAHTARI**

**S-1)**  $A = \{\{1, -2, 4, 3\}\}$

**S-2)**  $\text{Limit}[(x * x - 1)/(x - 1), x \rightarrow 1, \text{Direction} \rightarrow 1]$

**S-3)**  $\text{ParametricPlot}[\{\text{Cos}[t], \text{Sin}[t]\}, \{t, 0, \text{Pi}\}]$

**S-4)**  $\text{Fit}[\{\{0,1\}, \{1,0\}, \{3,2\}, \{5,4\}\}, \{1, x\}, x]$

**S-5)**  $\text{NDSolve}[\{x'[t] == -y[t] - x[t]^2, y'[t] == 2x[t] - y[t]^3, x[0] == 1, y[0] == 1\}, \{x, y\}, \{t, 0, 20\}]$

**S-6)**  $\text{NIntegrate}[(1/x) * \text{Cos}[\text{Log}[x]/x], \{x, 0, 1\}]$

**S-7)**  $1/\text{Sqrt}[2 * \text{Pi}] * \text{Integrate}[\text{Exp}[-a * t * t] * \text{Exp}[I * w * t], \{t, -\text{Infinity}, \text{Infinity}\}]$

**S-8)**  $\text{Series}[f'[t], \{t, 0, 4\}]$

$$f'[0] + f''[0]t + \frac{1}{2}f^{(3)}[0]t^2 + \frac{1}{6}f^{(4)}[0]t^3 + \frac{1}{24}f^{(5)}[0]t^4 + O[t]^5$$

**Not:** Palet kullanmayınız.

**Süre:** 75 dakikadır. Başarılar.

21.11.2018

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