MATEMATİK BÖLÜMÜ
MAT201, MAT302 ve MAT405 DERSLERİ İÇİN
ÖNEMLİ OLAN veya OLABİLECEK ÇALIŞMA SORULARI

Aşağıda $\mathbb{R} \times \mathbb{R} = \mathbb{R}^2$ kümesinde bazı bağıntılar verilmiştir. Her birinin grafiğini ilgili uzayda çiniz ve belirtilen derslerde işlenen veya adı geçen tüm topolojik özellikleri araştırınız.

$\big\{ (x,y) \in \mathbb{R}^2 : x = 0 \ ve \ y = 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : x = 0 \ veya \ y = 0 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : x < 1 \ ve \ y \leq -1 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : x < 1 \ veya \ y \leq -1 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : x < 1 \ ya \ da \ y \leq -1 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : y - x^2 = 0 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : xy = 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : x = y \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : x = 0 \ veya \ y = 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : xy = 0 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : xy > 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : xy < 0 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : \frac{x}{y} = 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : \frac{x}{y} > 0 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : \frac{x}{y} < 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : \frac{y}{x} \geq 0 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : \frac{y}{x} \leq 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : \frac{y}{x} = 1 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : \frac{y}{x} < 1 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : \frac{y}{x} > 1 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : x^2 = y^2 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : |x| = |y| \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : x^2 = 4 \ ve \ y^2 = 9 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : x^2 = 4 \ veya \ y^2 = 9 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : x^2 < 4 \ ve \ y^2 > 9 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : x^2 < 4 \ veya \ y^2 > 9 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : (x - y)^2 = 4 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : (x^2 - 1) = 4y^2 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : |x| - y = 4 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : x - 2|y| = 4 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : |x| - |y| = 4 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : |x| - 2|y| = 4 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : |x| + |y| = 4 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : |x| + 2|y| = 4 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : \big||x| - y\big| = 1 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : \big||y| + x\big| = 4 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : x^2 > 1 \ ve \ y \leq 1 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : x^2 \leq 1 \ ve \ y \geq 1 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : y^2 > 4 \ ve \ x \leq 4 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : y^2 \leq 4 \ ve \ x \leq 1 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : (x - y)^2 = 4 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : (x + y)^2 = 9 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : (x - y - 1)^2 < 4 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : (x + y - 1)^2 > 9 \big\}$

$\big\{ (x,y) \in \mathbb{R}^2 : \frac{x}{y - x} > 0 \big\}$, $\big\{ (x,y) \in \mathbb{R}^2 : \frac{y}{x - y} \leq 0 \big\}$

$\cdots \circ \cdots$

Sağlıcakla kalın...

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