

تحليل حدودية x^2 (التجريب)

$$x^2 - 5x - 6 = (x - 6)(x + 1)$$

$$x^2 + 2x + 1 = (x + 1)(x + 1)$$

$$x^2 + 3x - 10 = (x + 5)(x - 2)$$

$$x^2 - 6x + 8 = (x - 4)(x - 2)$$

$$x^2 - 11x - 12 = (x - 12)(x + 1)$$

$$x^2 - 9x + 14 = (x - 7)(x - 2)$$

$$x^2 + 7x + 10 = (x + 5)(x + 2)$$

$$x^2 + 13x + 36 = (x + 9)(x + 4)$$

$$x^2 + 5x - 24 = (x + 8)(x - 3)$$

$$x^2 - 19x + 34 = (x - 17)(x - 2)$$

$$x^2 + 24x - 25 = (x + 25)(x - 1)$$

$$x^2 + 16x + 64 = (x + 8)(x + 8)$$

$$x^2 + 14x + 45 =$$

$$3x^2 - 6x + 3 =$$

$$4x^2 - 24x + 36 =$$

$$4X^2 + 28X + 48 = 4(X^2 + 7X + 12)$$
$$4(X + 4)(X + 3)$$

$$3X^2 - 9X - 54 = 3(X^2 - 3X - 18)$$

$$3(X - 6)(X + 3)$$

$$9X^2 - 9X - 18 = 9(X^2 - X - 2)$$
$$9(X - 2)(X + 1)$$

$$15X^2 - 60 = 15(X^2 - 4)$$
$$15(X + 2)(X - 2)$$

$$6X^2 + 24X + 24 = 6(X^2 + 4X + 4)$$
$$6(X + 2)(X + 2)$$

$$15X^2 - 60 = 15(X^2 - 4)$$
$$= 15(X + 2)(X - 2)$$

$$6X^2 + 24X + 24 = 6(X^2 + 4X + 4)$$
$$= 6(X + 2)(X + 2)$$

$$3X^2 + 11X - 20$$

$$(X + 5)(3X - 4)$$

$$256X^4 - 1 = (16X^2 + 1)(16X^2 - 1)$$

$$\frac{1}{64}X^6 - 1 = \left(\frac{1}{8}X^3 + 1\right)\left(\frac{1}{8}X^3 - 1\right)$$

$$\frac{16}{81}X^4 - 16 = \left(\frac{4}{9}X^2 + 4\right)\left(\frac{4}{9}X^2 - 4\right)$$

$$4X^2 - 9 = (2X + 3)(2X - 3)$$

$$(X+1)^2 - 9 = 0$$

$$(X+1+3)(X+1-3)$$

$$(X+4)(X-2)$$

الدوال

تقسيم الدوال الى

١ دالة قطعية

٢ دالة كسرية

٣ دالة جذرية

$$F(x) = x^2 + 5x + 6$$

مثال
على مجال الدوال

اوسع مجال الدالة هو R

$$F = R$$

$$F(x) = 7$$

اوسع مجال الدالة هو R

$$F(x) = x^3 + 7x^2 + 6x + 9$$

اوسع مجال الدالة هو R

$$F(x) = \frac{x-3}{x+2}$$

$$x+2=0$$

$$x = -2$$

$$R / \{-2\}$$

$$F(x) = \frac{3+x}{x^2-9}$$

$$x^2-9=0$$

$$(x+3)(x-3)=0$$

$$\text{bi } x = -3$$

$$\text{gi } x = 3$$

$$R / \{-3, 3\}$$

$$F(x) = \frac{x^2+5}{x^2+5x+6}$$

$$x^2+5x+6=0$$

$$(x+3)(x+2)=0$$

$$\text{bi } x = -3$$

$$\text{gi } x = -2$$

$$R / \{-3, -2\}$$

$$F(x) = \sqrt{x+2}$$

$$x+2 \geq 0$$

$$x \geq -2$$

$$f = \{x : x \in \mathbb{R}, x \geq -2\}$$

$$f(x) = \sqrt{3x+15}$$

$$3x+15 \geq 0$$

$$3x \geq -15 \quad \div 3$$

$$x \geq -5$$

$$\{x : x \in \mathbb{R}, x \geq -5\}$$

$$f(x) = \sqrt{4-x}$$

$$4-x \geq 0$$

$$4 \geq x$$

$$x \leq 4$$

$$\{x : x \in \mathbb{R}, x \leq 4\}$$

$$f(x) = x + 3$$

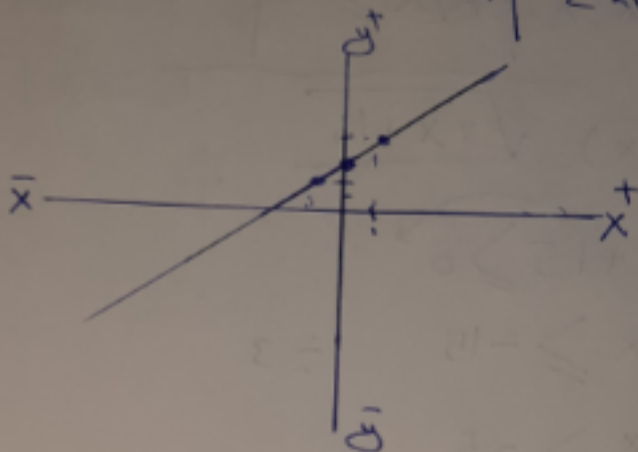
رسم الدوال

$$f(1) = 1 + 3 = 4$$

$$f(0) = 0 + 3 = 3$$

$$f(-1) = -1 + 3 = 2$$

x	y	(x, y)
1	4	(1, 4)
0	3	(0, 3)
-1	2	(-1, 2)



$$f(x) = x^2 + 2$$

$$f(1) = (1)^2 + 2 = 3$$

$$f(0) = (0)^2 + 2 = 2$$

$$f(-1) = (-1)^2 + 2 = 3$$

x	y	(x, y)
1	3	(1, 3)
0	2	(0, 2)
-1	3	(-1, 3)

