

AGU.14 / Σελ 84

$$\text{ii) } |2x-4| = |x-1| \Leftrightarrow$$

$$2x-4 = x-1$$

$$2x-x = -1+4$$

$$x = 3$$

$$2x-4 = -x+1$$

$$2x+x = 4+1$$

$$3x = 5$$

$$x = \frac{5}{3}$$

Agg. 15 / 28 85

$$i) \frac{|x|+4}{3} - \frac{|x|+4}{5} = \frac{2}{3}$$

Ditw : $|x|=y$

$$\cancel{15} \frac{y+4}{3} - \cancel{15} \frac{y+4}{5} = \frac{2}{3} \quad (15 \cdot \Rightarrow)$$

$$5(y+4) - 3(y+4) = 10 \Leftrightarrow$$

$$5y + 20 - 3y - 12 = 10 \Leftrightarrow$$

$$5y - 3y = 10 + 12 - 20$$

$$\Leftrightarrow 2y = 2$$

$$y = \frac{2}{2} = \boxed{1}$$

$$\text{Apa } |x| = 1 \Leftrightarrow$$

$$x = \pm 1$$

$$\textcircled{097} \quad |2x-3|=4$$

$$\frac{|2x-3|+4}{3} - \frac{|2x-3|+4}{5} = \frac{2}{3}$$

$$\frac{5}{15} \frac{4+4}{3} - \frac{3}{15} \frac{4+4}{5} = \frac{5}{15} \frac{2}{3}$$

$$5(4+4) - 3(4+4) = 10$$

$$5 \cdot 4 + 20 - 3 \cdot 4 - 12 = 10$$

$$5 \cdot 4 - 3 \cdot 4 = 10 + 12 - 20$$

$$\frac{20}{2} = \frac{2}{2} \quad \boxed{4 = 1}$$

$$|2x-3|=1$$

$$2x-3=1 \quad \vee \quad 2x-3=-1$$

$$2x=1+3 \quad \Leftarrow$$

$$2x=4 \quad \Leftarrow$$

$$\boxed{x=2}$$

$$2x=-1+3 \quad \Leftarrow$$

$$2x=2 \quad \Leftarrow$$

$$\boxed{x=1}$$

Να λύσει η εξίσωση:

$$|2x-4| + |x^3-2x^2+x-2| = 0$$

Απόρριψη αποδείκνυται με μνηδόν.

$$2x-4=0$$

$$2x=4$$

$$x=2$$

και

$$x^3-2x^2+x-2=0$$

$$x(x^2+1)-2(x^2+1)=0$$

$$(x^2+1)(x-2)=0 \Leftrightarrow$$

$$x^2+1=0 \quad \vee \quad x=2$$

$x^2=-1$ Αδύνατη

$$|a|+|b|=0 \Leftrightarrow$$
$$a=0 \text{ και } b=0$$

Να λυθεί η εξίσωση:

$$|2x-4| + |x^3 - 2x^2 + x - 2| = 0$$

$$2x - 4 = 0$$

$$2x = 4$$

$$x = 2$$



$$x^3 - 2x^2 + x - 2 = 0$$

$$2^3 - 2 \cdot 2^2 + 2 - 2 = 0$$

$$8 - 2 \cdot 4 + 2 - 2 = 0$$

$$8 - 8 + 2 - 2 = 0$$

$$0 = 0$$

Να λυθούν οι εξισώσεις:

$$1) |2x-2| + |x^4 + 3x^3 + 5x^2 - 9| = 0$$

$$2) |x^2 - 1| + |5x^3 + 7x^2 + 10x - 17| = 0$$

$$3) \frac{2|2x-1|+1}{3} - \frac{|2x-1|+1}{2} = \frac{1}{2}$$

ΑΓΚ.7-Β'04/Σ.85.