

ΤΕΣΤ ΣΤΑ ΜΑΘΗΜΑΤΙΚΑ

56

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08-11-16

Όν/μο:.....

Ύλη: Εξισώσεις α' βαθμού

Να λύσετε τις εξισώσεις:

A.  $2x - 6 = 5x + 9$

B.  $2 - 4(-x + 1) = 8x - (2x + 7)$

Γ.  $x - \frac{2}{3}x - \frac{x+2}{6} = -1$

Δ.  $1 - \frac{3(x-1)}{4} - \frac{1}{5}\left(2x - \frac{x-2}{4}\right) = x$

Ε.  $\frac{1 - [3 - 2(x-1)]}{4} + \frac{3-x}{-6} = -2(x-1)$

(5x20=100μον.)

ΚΑΛΗ ΕΠΙΤΥΧΙΑ

**ΑΠΑΝΤΗΣΕΙΣ(ΕΝΔΕΙΚΤΙΚΕΣ)**

**A.**  $2x - 6 = 5x + 9 \Leftrightarrow$

$$2x - 5x = 9 + 6 \Leftrightarrow$$

$$-3x = 15 \Leftrightarrow$$

$$\frac{-3x}{-3} = \frac{15}{-3} \Leftrightarrow$$

$$x = -5$$

**B.**  $2 - 4(-x + 1) = 8x - (2x + 7) \Leftrightarrow$

$$2 + 4x - 4 = 8x - 2x - 7 \Leftrightarrow$$

$$4x - 8x + 2x = -7 + 4 - 2 \Leftrightarrow$$

$$-2x = -5 \Leftrightarrow$$

$$\frac{-2x}{-2} = \frac{-5}{-2} \Leftrightarrow$$

$$x = \frac{5}{2}$$

**Γ.**  $x - \frac{2}{3}x - \frac{x+2}{6} = -1 \stackrel{\text{Ε.Κ.Π.}(3,6)=6}{\Leftrightarrow}$

$$6x - 6 \cdot \frac{2}{3}x - 6 \cdot \frac{x+2}{6} = -1 \cdot 6 \Leftrightarrow$$

$$6x - 4x - (x + 2) = -6 \Leftrightarrow$$

$$6x - 4x - x - 2 = -6 \Leftrightarrow$$

$$6x - 4x - x = -6 + 2 \Leftrightarrow$$

$$x = -4$$

$$\Delta. 1 - \frac{3(x-1)}{4} - \frac{1}{5} \left( 2x - \frac{x-2}{4} \right) = x \Leftrightarrow$$

$$1 - \frac{3x-3}{4} - \frac{2x}{5} + \frac{x-2}{20} = x \quad \text{Ε.Κ.Π.}(4,5)=20 \Leftrightarrow$$

$$20 - 20 \frac{3x-3}{4} - 20 \frac{2x}{5} + 20 \frac{x-2}{20} = 20x \Leftrightarrow$$

$$20 - 5(3x-3) - 4 \cdot 2x + x - 2 = 20x \Leftrightarrow$$

$$20 - 15x + 15 - 8x + x - 2 = 20x \Leftrightarrow$$

$$-15x - 8x - 20x + x = 2 - 15 - 20 \Leftrightarrow$$

$$-42x = -33 \Leftrightarrow$$

$$\frac{-42x}{-42} = \frac{-33}{-42} \Leftrightarrow$$

$$x = \frac{33}{42}$$

$$E. \frac{1 - [3 - 2(x-1)]}{4} + \frac{3-x}{-6} = -2(x-1) \Leftrightarrow$$

$$\frac{1 - (3 - 2x + 2)}{4} - \frac{3-x}{6} = -2x + 2 \Leftrightarrow$$

$$\frac{1 - 3 + 2x - 2}{4} - \frac{3-x}{6} = -2x + 2 \Leftrightarrow$$

$$\frac{2x-4}{4} - \frac{3-x}{6} = -2x + 2 \quad \text{Ε.Κ.Π.}(4,6)=12 \Leftrightarrow$$

$$12 \cdot \frac{2x-4}{4} - 12 \cdot \frac{3-x}{6} = -24x + 24 \Leftrightarrow$$

$$3(2x-4) - 2(3-x) = -24x + 24 \Leftrightarrow$$

$$6x - 12 - 6 + 2x = -24x + 24 \Leftrightarrow$$

$$6x + 2x + 24x = 24 + 6 + 12 \Leftrightarrow$$

$$32x = 42 \Leftrightarrow$$

$$\frac{32x}{32} = \frac{42}{32} \Leftrightarrow$$

$$x = \frac{21}{16}$$