

Επαναληπτικό Φύλλο Εργασίας

Άσκηση 1

Να λύσετε τις παρακάτω εξισώσεις σύμφωνα με το παράδειγμα:

α) Παράδειγμα:

$$\begin{aligned}
 12 - 2x + 3 &= -7 + x - 11 \\
 -2x - x &= -7 - 11 - 12 - 3 \\
 -3x &= -33 \\
 \frac{-3x}{-3} &= \frac{-33}{-3} \\
 x &= 11
 \end{aligned}$$

1^η Εξίσωση:

$$\begin{aligned}
 5x + 3 - 8x &= -x + 31 + 2x \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots
 \end{aligned}$$

β) Παράδειγμα:

$$\begin{aligned}
 5 - 4 \cdot (2 - 3y) &= 2 \cdot (7 - 4y) - 7 \\
 5 - 8 + 12y &= 14 - 8y - 7 \\
 12y + 8y &= 14 - 7 - 5 + 8 \\
 20y &= 10 \\
 \frac{20y}{20} &= \frac{10}{20} \\
 y &= \frac{1}{2}
 \end{aligned}$$

2^η Εξίσωση:

$$\begin{aligned}
 -3 - 2 \cdot (-5 - 4x) &= 9 + 3 \cdot (2x - 4) \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots
 \end{aligned}$$

γ) Παράδειγμα:

$$\begin{aligned}
 \frac{2x-1}{3} - \frac{x+2}{6} &= -2 \\
 6 \cdot \frac{2x-1}{3} - 6 \cdot \frac{x+2}{6} &= -6 \cdot 2 \\
 2(2x-1) - 1(x+2) &= -12 \\
 4x - 2 - x - 2 &= -12 \\
 4x - x &= -12 + 2 + 2 \\
 3x &= -12 + 4 \\
 3x &= -8 \\
 x &= \frac{-8}{3}
 \end{aligned}$$

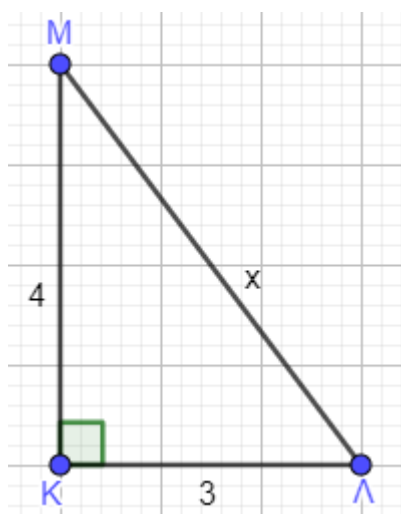
3^η Εξίσωση:

$$\begin{aligned}
 3 - \frac{3-2x}{4} &= \frac{1-x}{8} - 1 \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots \\
 \dots\dots\dots &= \dots\dots\dots
 \end{aligned}$$

Άσκηση 2

Να βρείτε το μήκος x :

α) Παράδειγμα:



Π.Θ:

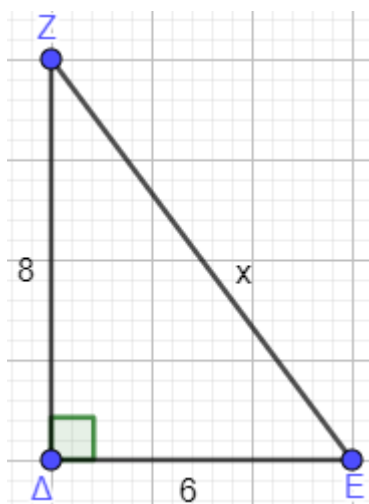
$$ΜΛ^2 = ΜΚ^2 + ΚΛ^2$$

$$x^2 = 3^2 + 4^2$$

$$x^2 = 9 + 16$$

$$x^2 = 25$$

$$x = \sqrt{25} = 5$$



Π.Θ:

$$\dots\dots = \dots\dots + \dots\dots$$

$$\dots\dots = \dots\dots + \dots\dots$$

$$\dots\dots = \dots\dots + \dots\dots$$

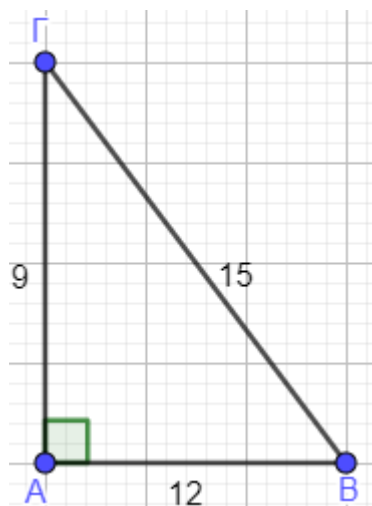
$$\dots\dots = \dots\dots$$

$$\dots\dots = \dots\dots$$

Άσκηση 3

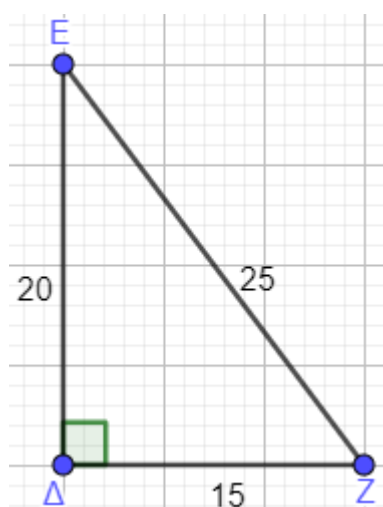
Σε καθένα από τα παρακάτω ορθογώνια τρίγωνα να βρείτε τα ημίτονα, τα συνημίτονα και τις εφαπτομένες των οξείων γωνιών.

Παράδειγμα:



$$\begin{aligned}\eta\mu B &= \frac{AC}{BC} = \frac{9}{15} = \frac{3}{5} \\ \sigma\upsilon\nu B &= \frac{AB}{BC} = \frac{12}{15} = \frac{4}{5} \\ \epsilon\phi B &= \frac{AC}{AB} = \frac{9}{12} = \frac{3}{4}\end{aligned}$$

$$\begin{aligned}\eta\mu\Gamma &= \frac{AB}{BC} = \frac{12}{15} = \frac{4}{5} \\ \sigma\upsilon\nu\Gamma &= \frac{AC}{BC} = \frac{9}{15} = \frac{3}{5} \\ \epsilon\phi\Gamma &= \frac{AB}{AC} = \frac{12}{9} = \frac{4}{3}\end{aligned}$$



$$\begin{aligned}\eta\mu Z &= - - - - - \\ \sigma\upsilon\nu Z &= - - - - - \\ \epsilon\phi Z &= - - - - -\end{aligned}$$

$$\begin{aligned}\eta\mu E &= - - - - - \\ \sigma\upsilon\nu E &= - - - - - \\ \epsilon\phi E &= - - - - -\end{aligned}$$