

СПОСОБ ПОДСТАНОВКИ



7 класс



14.11.2020 года
Работа на уроке
№ 12.3

$$a) \begin{cases} x = 4y \\ x + 5y = 99 \end{cases} \Rightarrow \begin{cases} x = 4y \\ 4y + 5y = 99 \end{cases}$$

$$4y + 5y = 99$$

$$9y = 99$$

$$y = 99 : 9$$

$$y = 11$$

$$\begin{cases} x = 4y \\ y = 11 \end{cases} \Rightarrow \begin{cases} x = 4 \cdot 11 \\ y = 11 \end{cases} \Rightarrow$$

$$\Rightarrow \begin{cases} x = 44 \\ y = 11 \end{cases}$$

ответ: (44; 11)

№ 12.4

$$a) \begin{cases} x = 10y \\ 2x + 3y = 46 \end{cases} \Rightarrow \begin{cases} x = 10y \\ 2 \cdot 10y + 3y = 46 \end{cases} \Rightarrow$$

$$\begin{cases} x = 10y \\ 20y + 3y = 46 \end{cases}$$

$$20y + 3y = 46$$

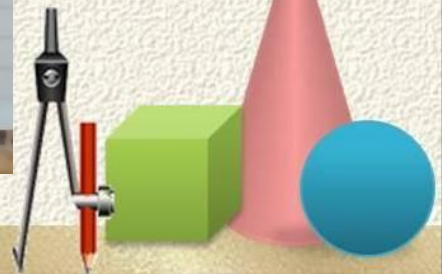
$$23y = 46$$

$$y = 46 : 23$$

$$y = 2$$

$$\begin{cases} x = 10y \\ y = 2 \end{cases} \Rightarrow \begin{cases} x = 10 \cdot 2 \\ y = 2 \end{cases} \Rightarrow$$

$$\begin{cases} x = 20 \\ y = 2 \end{cases} \text{ ответ: } (20; 2)$$



Выразить переменные

№ 12.5

$$\begin{aligned} \text{a) } 2x + y &= 4 \\ y &= 4 - 2x \end{aligned}$$

$$\begin{aligned} \text{б) } x + 6y &= 9 \\ x &= 9 - 6y \end{aligned}$$

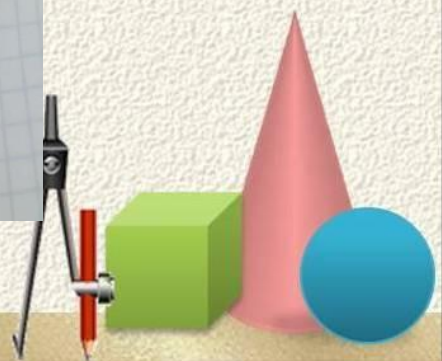
$$\begin{aligned} \text{в) } 3a + b &= 12 \\ b &= 12 - 3a \end{aligned}$$

$$\begin{aligned} \text{г) } c + 8d &= 15 \\ c &= 15 - 8d \end{aligned}$$

№ 12.6.

$$\begin{aligned} \text{a) } 6x - y &= 18 \\ -y &= 18 - 6x \\ y &= -18 + 6x \\ y &= 6x - 18 \end{aligned}$$

$$\begin{aligned} \text{б) } -a - 5b &= 20 \\ -a &= 20 + 5b \\ a &= -20 - 5b \end{aligned}$$



№ 12. 7

$$a) 3S - 2t = 8 \quad (\text{выразим } S)$$

$$3S = 8 + 2t$$

$$S = \frac{8 + 2t}{3} \quad \text{или} \quad S = \frac{8}{3} + \frac{2t}{3}$$

одно и то же

выразим t

$$a) 3S - 2t = 8$$

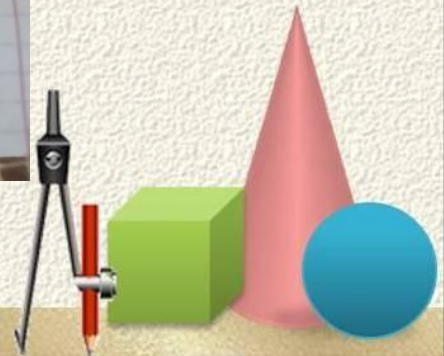
$$-2t = 8 - 3S$$

$$2t = -8 + 3S$$

$$2t = 3S - 8$$

$$t = \frac{3S}{2} - \frac{8}{2}$$

$$t = \frac{3S}{2} - 4$$



N 12.8.

$$a) \begin{cases} 5x - 3y = 14 \\ 2x + y = 10 \end{cases} \Rightarrow \begin{cases} 5x - 3y = 14 \\ y = 10 - 2x \end{cases}$$

$$\Rightarrow \begin{cases} 5x - 3(10 - 2x) = 14 \\ y = 10 - 2x \end{cases}$$

Решаем уравнение

$$5x - 3(10 - 2x) = 14$$

$$5x - 30 + 6x = 14$$

$$5x + 6x = 14 + 30$$

$$11x = 44$$

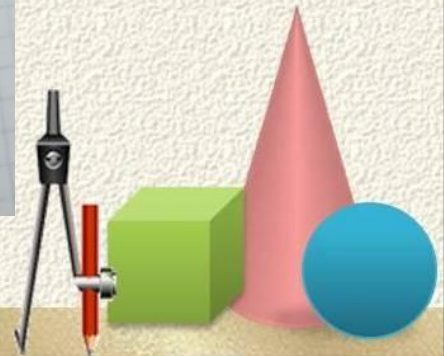
$$x = 44 : 11$$

$$x = 4$$

$$\begin{cases} x = 4 \\ y = 10 - 2x \end{cases} \Rightarrow \begin{cases} x = 4 \\ y = 10 - 2 \cdot 4 \end{cases} \Rightarrow$$

$$\Rightarrow \begin{cases} x = 4 \\ y = 2 \end{cases}$$

Ответ: $(4; 2)$



Домашнее задание

