

Solving a system of linear equations using elimination with multiplication...

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Solving a system of linear equations using elimination with multiplication and addition

Solve the following system of equations.

$$\begin{aligned} -5x - 4y &= -2 \\ -2x - 7y &= 10 \end{aligned}$$

$x =$
 $y =$

$-2(-5x - 4y = -2)$
 $5(-2x - 7y = 10)$

$10x + 8y = 4$
 $+ -10x - 35y = 50$
 $-27y = 54$
 $-27 -27$
 $y = -2$

Plug in $y = -2$
 $-5x - 4(-2) = -2$
 $-5x + 8 = -2$
 $-8 -8$
 $-5x = -10$
 $x = 2$

$(2, -2)$