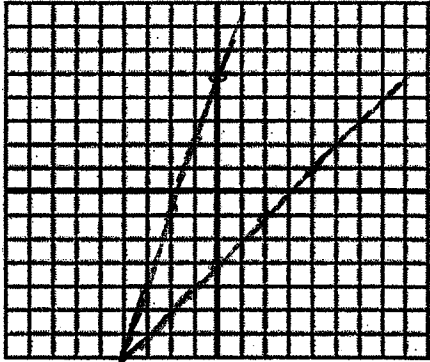


2. Homework

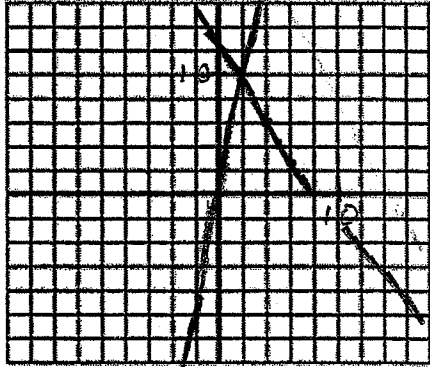
GO: Systems of Linear Equations Homework Exercises

Directions: Solve each system of linear equations using different strategies.

1.

System	Substitution																								
$y = x - 3$ and $y = 3x + 5$	$\begin{aligned} x - 3 &= 3x + 5 \\ -x &\quad -x \\ -3 &= 2x + 5 \\ -5 &\quad -5 \\ -8 &= 2x \\ x &= -4 \end{aligned}$ $\begin{aligned} y &= -4 - 3 \\ y &= -7 \\ &(-4, -7) \end{aligned}$																								
Table	Graph																								
<table border="1" style="display: inline-table; margin-right: 20px;"> <tr><th>x</th><th>y</th></tr> <tr><td>0</td><td>-3</td></tr> <tr><td>2</td><td>-1</td></tr> <tr><td>4</td><td>1</td></tr> <tr><td>6</td><td>3</td></tr> <tr><td> </td><td> </td></tr> </table> <table border="1" style="display: inline-table;"> <tr><th>x</th><th>y</th></tr> <tr><td>0</td><td>5</td></tr> <tr><td>-1</td><td>2</td></tr> <tr><td>-2</td><td>-1</td></tr> <tr><td>-3</td><td>-4</td></tr> <tr><td> </td><td> </td></tr> </table>	x	y	0	-3	2	-1	4	1	6	3			x	y	0	5	-1	2	-2	-1	-3	-4			
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2	-1																								
4	1																								
6	3																								
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2.

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$y = 5x$ and $2x + y = 14$	$\begin{aligned} 2x + (5x) &= 14 \\ 7x &= 14 \\ x &= 2 \end{aligned}$ $\begin{aligned} y &= 5(2) \\ y &= 10 \end{aligned}$ $(2, 10)$																								
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3.

System	Substitution																								
$y = 7x - 12$ and $4x - 2y = 34$	$4x - 2(7x - 12) = 34$ $4x - 14x + 24 = 34$ $-10x = 10$ $x = -1$ $y = 7(-1) - 12$ $y = -7 - 12$ <div style="text-align: right; font-size: 1.5em;">(-1, -19)</div>																								
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4.

System	Substitution																								
$12x - 7y = 20$ and $3x + 2y = 6$ $2y = -3x + 6$ $y = -\frac{3}{2}x + 3$	$12x - 7(-\frac{3}{2}x + 3) = 20$ $12x + \frac{21}{2}x - 21 = 20$ $24x + 21x - 42 = 40$ $45x = 82$ $x = \frac{82}{45}$ <div style="text-align: right; font-size: 1.5em;"> $3(\frac{82}{45}) + 2y = 6$ $\frac{82}{15} + 2y = 6$ $82 + 30y = 90$ $30y = 8$ $y = \frac{8}{30} = \frac{4}{15}$ </div> <div style="text-align: right; font-size: 1.5em;"> $(\frac{82}{45}, \frac{4}{15})$ </div>																								
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