## Linear Systems of 3 Equations

1. Solve for real numbers.		$\int x - y$	$y = \frac{1}{2},$
	$\int x + y = 28,$		1
1)	$\begin{cases} x + y = 28, \\ z + x = 30, \\ y + z = 32; \end{cases}$	2) $\begin{cases} y - z \\ z$	$z = \frac{1}{6},$
	y + z = 32;	- 9	4
		$2) \begin{cases} x-y \\ y-z \\ x+z \end{cases}$	$z=\frac{1}{3};$
	$\int x + 2y = \frac{7}{2}$		
	<i>w</i> + <i>-9</i> 4'	$\int x + 2y$	= 9,
3)	$\begin{cases} y+3z=\frac{5}{2}, \end{cases}$	4) $\begin{cases} x + 2y \\ y - 3z \\ 5z - x \end{cases}$	= -5,
	11	5z-x	= 14;
	$\begin{cases} x + 2y = \frac{7}{4}, \\ y + 3z = \frac{5}{2}, \\ z + 4x = \frac{11}{3}; \end{cases}$	中国 中国 中国	
	$\int x + y = 13,$	$\int 2x + y$	= 7,
5)	$\begin{cases} x + y = 13, \\ x - z = 5, \\ y - z = 2; \end{cases}$	$6) \begin{cases} 2x+y\\ y-3z\\ 5z-x \end{cases}$	= -9,
	$\Big( y-z=2;$	$\int 5z - x$	= 18;
	$\int 2x + 3y = 11,$	$\int x + y -$	-z = 11,
7)	$\begin{cases} 2x + 3y = 11, \\ 3x + 2z = 13, \\ 3y + 4z = 29; \end{cases}$	8) $\begin{cases} x+y-x-y+y+z-z \end{cases}$	-z = 1,
	$\begin{cases} x - y - z = 5, \\ y - x - z = 1, \\ z - x - y = -15; \end{cases}$	$10) \begin{cases} 7x + 6y \\ x - 2y \\ 3x + y \end{cases}$	y + 7z = 100,
9)	$\begin{cases} y - x - z = 1, \\ 15 \end{cases}$	$10) \begin{cases} x-2y \\ z \end{cases}$	+ z = 0,
11)	$\int \frac{3x + 2y + 3z = 110}{5},$	12 $x+2y$	-3z = -8,
11)	$\begin{cases} 3x + 2y + 3z = 110, \\ 5x + y - 4z = 0, \\ 2x - 3y + z = 0; \end{cases}$	$12) \begin{cases} x+2y\\ -3x+\\ 2x-3y \end{cases}$	y + 2z = 10, y + 2z = 5.
	(2x - 3y + z = 0,	$\left(2x-3y\right)$	y + 2z = 0
12)	$\int \frac{2x - 3y + 4z = 5}{3x + 4y - 2z = 0}$	$\int_{14}^{x+y-14}$	-2z = 0, -8z = 0
10)	$\begin{cases} 2x - 3y + 4z = 5, \\ 3x + 4y - 2z = 0, \\ -4x + 2y + 3z = 8; \end{cases}$	$14) \begin{cases} x+y-\\ x-y-\\ 3x+5y \end{cases}$	$y_{1} + 4z = 4$ :
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	$\int x + 2y + 3z = 0,$		$\int x + y - z = 0,$
15)	$\begin{cases} x + 2y + 3z = 0, \\ x - y + z = 0, \\ x + y - 2z = 0; \end{cases}$	16)	$\begin{cases} x + y - z = 0, \\ 2x + y - z = 1, \\ 4x + 2y - 3z = 0; \end{cases}$
	$\Big( x + y - 2z = 0; \Big)$		$\left(4x+2y-3z=0;\right.$
	$\int z = 3x - y + 1,$		$\int \frac{x}{z} - \frac{y}{4} - \frac{z}{10} = 0,$
17)	$\begin{cases} z = 3x - y + 1, \\ 2z = 5,6x - 2,4y + 0,8, \\ 3z = 10x - 2y; \end{cases}$	18)	$\begin{cases} 5 & 4 & 10 \\ -0.2x + 0.6z = 1 \end{cases}$
	$\int 3z = 10x - 2y;$		$\begin{cases} \frac{x}{5} - \frac{y}{4} - \frac{z}{10} = 0, \\ -0,2x + 0,6z = 1, \\ x - y - z = -1. \end{cases}$
	$[1)$ $[13; 15; 17]; 2)$ $\left[\frac{11}{12}; \frac{7}{12}\right]$	$;\frac{5}{12}];$	<b>3</b> ) $\left[\frac{3}{4};\frac{1}{2};\frac{2}{3}\right];$ <b>4</b> ) [1;4;3];
	<b>5</b> ) [8; 5; 3]; <b>6</b> ) [2; 3; 4]; <b>7</b> ) <b>10</b> ) [3; 5; 7]; <b>11</b> ) [11; 13; 1	[1; 3; 5]; 7]; <b>12</b> )	<b>8</b> ) $[6; 8; 3];$ <b>9</b> ) $[7; 5; -3];$ [3; 5; 7]; <b>13</b> ) $[0; 1; 2];$
	<b>14</b> ) $[5; -3; 1];$ <b>15</b> ) $[0; 0; 0]$	]; <b>16</b> ) [1	l;1;2]; <b>17</b> ) No solution.
	<b>18</b> ) $x = t; \ y = \frac{2}{3}(t-1); \ z$	$z = \frac{1}{3}(t)$	+5); $t \in \mathbb{R}$
2. Sol	ve for real numbers.		
	(x, y, z)		( y + z = 11
	$\frac{z}{2} + \frac{y}{3} + \frac{z}{4} = 1,$		$2x - \frac{g+2}{7} = \frac{11}{12},$
1)	$\begin{cases} \frac{x}{z} + \frac{y}{z} + \frac{z}{z} = 1. \end{cases}$	2)	$\begin{cases} 3y - \frac{x+z}{z} = \frac{11}{z}, \end{cases}$
-,	$3 \cdot 4 \cdot 5 - 7$	-,	9 12'
	$\begin{cases} \frac{x}{2} + \frac{y}{3} + \frac{z}{4} = 1, \\ \frac{x}{3} + \frac{y}{4} + \frac{z}{5} = 1, \\ \frac{x}{4} + \frac{y}{5} + \frac{z}{6} = 1; \end{cases}$		$\begin{cases} 2x - \frac{y+z}{7} = \frac{11}{12}, \\ 3y - \frac{x+z}{9} = \frac{11}{12}, \\ 4z - \frac{x+y}{2} = \frac{7}{12}; \end{cases}$
	$\int \frac{2x+6}{3x-5y} = \frac{3}{2},$		
3)	$\left\{ \frac{x}{x+3u} = \frac{3}{5}, \right.$		
	x+z 3		
	$\left( \frac{1}{y+3z} = \frac{1}{4} \right)$		
	[1) $[12; -60; 60]; 2)$	$\left[\frac{1}{2};\frac{1}{3};\right.$	$\frac{1}{4} ]; 3) \left[ \frac{36}{5}; \frac{8}{5}; \frac{24}{5} \right]. ]$