2MS - DÚ č. 4 - <u>SOUSTAVY ROVNIC A NEROVNIC</u>

1. R^3:

a) $x+y-z=17$
$x+z-y=13$
$y+z-x=7$
$[K=\{[15;12;10]\}]$

b) $3x+2y+3z=110$
$5x-y-4z=0$
$2x-3y+z=0$
$\left[K=\left\{\left[\frac{55}{4};\frac{55}{4};\frac{55}{4}\right]\right\}\right]$

c) $x+y-z=5$
$2x+2y-2z=7$
$x-3y+5z=15$
$[K=\{0\}]$

3. R^2:

a) $5x-3y=7$
$10x-6y=5$
$[K=\{0\}]$

b) $5x-3y=7$
$10x-6y=14$
$[K=\{R\times R\}]$

c) $3x-2y=4$
$x+3y=5$
$[K=\{[2;1]\}]$

4. a) Z^2: $\frac{3x-4y+3}{4}=4-\frac{4x-2y-9}{3}$
$\frac{2x-y+3}{3}=4+\frac{x-2y+3}{4}$
$[K=\{[7;5]\}]$

b) v N^2: $\frac{3x-4}{3y+4}=\frac{1}{2}$
$\frac{2x-y}{2x+y}=\frac{1}{4}$
$[K=\{[5;6]\}]$

5. v R^3:

a) $4x+3y-z=7$
$3x+4y+z=0$
$5x+y+2z=0$
$\left[K=\left\{\left[\frac{7}{6};-\frac{1}{6};-\frac{17}{6}\right]\right\}\right]$

b) $2x+3y-z=0$
$3x+7y-5z=0$
$x-y+3z=10$
$[K=\{0\}]$