

sol.

8.  $(-1; 0; 3; 4) = \vec{x}$

51. not LI;  $\dim = 2$ ; E.g.  $\{\vec{x}, \vec{y}\}$

70. not LI for  $a \in \{-1, 2\}$  ...  $\dim = 2$

LI ( $\dim = 3$ ) otherwise

73. E.g.  $\vec{a} = \vec{u} + \vec{v}$  (not unambiguous)

110.  $\begin{pmatrix} 3 & 6 & 3 \\ 2 & 4 & 2 \\ 1 & 2 & 1 \end{pmatrix}$

112.  $\begin{pmatrix} 1 & 2 \\ 3 & 2 \\ 1 & 3 \end{pmatrix}$

140.  $x = 4; y = 2$

148.  $\nexists A^{-1}$

148.  $\frac{1}{5} \begin{pmatrix} -14 & 7 & 5 \\ -13 & 4 & 5 \\ 15 & -5 & -5 \end{pmatrix}$

175.  $\frac{1}{4} \begin{pmatrix} 2 & 1 \\ 0 & 1 \end{pmatrix}$

185.  $-58$

236.  $7: p(1; 1) \quad -2: q(4; 5)$

256.  $1: p(-1; 3); \quad 4: q(0; 1)$

258.  $\lambda_{1,2,3} = 1: \quad p(-1; -1; 1)$

$p, q \in \mathbb{R} - \{0\}$

276.  $1 \quad (\vec{x} = (2; 3; 5))$

278.  $a = 1$   $\infty$  sol.;  $a \in \mathbb{R} - \{1; -2\}$  1 sol.

300. 1 for  $\lambda = 1$

295. no

0 otherwise

301. 1 for  $\lambda = 2$

0 otherwise

309. only 1 sol.  $(\vec{x} = \vec{0})$