

Homework: Inconsistent and Dependent Systems - Key

In Problems 1-12, use Gaussian elimination to find the complete solutions to each system of equations, or show that none exists.

1. $\left(\frac{5}{7}z - \frac{6}{7}, \frac{8}{7}z - \frac{11}{7}, z\right)$	2. $\left(\frac{-7}{15}, \frac{29}{15}, \frac{2}{15}\right)$
3. No solution	4. $\left(\frac{13}{11}z + \frac{5}{11}, \frac{-5}{11}z - \frac{7}{11}, z\right)$
5. $\left(\frac{-9}{8}, \frac{-11}{8}, \frac{-13}{8}\right)$	6. $(2z + 9, 7z + 16, -3z - 10, z)$
7. No solution	8. $\left(\frac{1}{2}z + \frac{1}{8}, \frac{1}{2}z - \frac{13}{8}, z\right)$
9. $(26z + 26, -3z - 3, z)$	10. $(-4z - 2, -17z - 11, z)$
11. $\left(\frac{7}{5}z + \frac{11}{5}, \frac{-3}{35}z + \frac{11}{35}, \frac{1}{7}z + \frac{8}{7}, z\right)$	12. $\left(\frac{8}{43}z + \frac{6}{43}, \frac{-12}{43}z - \frac{138}{43}, \frac{1}{43}z + \frac{119}{43}, z\right)$