Math Milestones™

Name _____   Date _____

System Solutions

(1) Decide whether each system has exactly one solution, infinitely many solutions, or no solutions.

$$\begin{cases} y = \frac{2}{3}x + 1 \\ y = \frac{2}{3}x + 2 \end{cases} \quad \begin{cases} d = 100 - 4t \\ d = 3.5 + t \end{cases} \quad \begin{cases} \frac{1}{8}Q + \frac{3}{8}R = -1 \\ Q + 3R = -8 \end{cases}$$

(2) For one system, justify your decision to your classmates in two ways:

(a) drawing graphs of solutions;

(b) algebraically.