Problem of the Week
Problem E
Putting the Parts Together

Determine the number of solutions to

$$\frac{P}{Q} - \frac{Q}{P} = \frac{P+Q}{PQ}$$

where $\left\{ \begin{array}{l} \bullet \ P \text{ and } Q \text{ are both integers} \\ \\ \bullet -9 \leq P \leq 9; \text{ and} \\ \\ \bullet -9 \leq Q \leq 9 \end{array} \right.$