

UC Merced Applied Math Problem of the Month

March 2026

$$\sqrt{\mathbf{P}\mathbf{I}} - \sqrt{\mathbf{E}} = \mathbf{P} + \mathbf{I} - \mathbf{E}$$

Let P, I, E be three distinct integers between 1 and 9 (inclusive). Find the values that satisfy the equation shown in the image. Note that PI represents a two-digit integer, not the product of P and I . Are there more solutions if you are allowed to use integers 1 through 9 at most twice?

To submit your solutions for a chance to win an Amazon gift card, and to find out detailed contest rules,

- scan the QR code, or
- go to <https://bit.ly/UCM-POTM>

