## **UC Merced Applied Math Problem of the Month**

November 2024

$$6^2 = 36$$
 $66^2 = 4356$ 
 $666^2 = 443556$ 
 $6666^2 = 44435556$ 
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Do you see a pattern? Can you describe it in a mathematical way? Can you explain why or how this pattern appears? Can you prove or justify your claim?

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

