## Pi Mu Epsilon Problem of the Month October 2019

An explorer must start and end their journey on the red square. They must not enter the shaded blue squares but must enter every other square. However, every other square may only be entered once. The explorer may travel vertically, horizontally, or diagonally. If a path is specified by the sequence of letters that make it up, determine how many different paths are possible.

| A | B | C |  | D |
| :---: | :---: | :---: | :---: | :---: |
| E |  | F | G | H |
| I | J | K |  | L |
| M |  | N | $O$ | $P$ |
| $Q$ | $R$ | $S$ |  | $T$ |

Problem of the Month Rules:
H Submissions must include a complete mathematical justification along with the answer.
H Submissions may only be made by individuals or groups of two and must be dated.
H Due date: October 28, 2019 before 5 p.m. to Dr. Phillip Poplin or Dr. David Shoenthal.
To get your own copy, please visit: http://www.longwood.edu/mathematics/

