# Pi Mu Epsilon <br> Problem of the Month September 2023 



Given right triangle BAC.
AEFG is a square, with
point $F$ in on $B C$,
$A E=4, B C=12$,
Find the exact length of $B E$.

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.
$\mathscr{H}$ Due date: September 27, 2023 before 5 p.m. to one of Drs. Poplin, Shoenthal, Ledford, or Hoehner.
To get your own copy, please visit: http://www.longwood.edu/mathematics/

