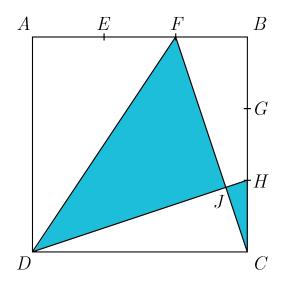


Problem of the Week Problem E A Fraction to Find

In square ABCD, points E and F lie on AB such that AE = EF = FB = 10. Similarly, points G and H lie on BC such that BG = GH = HC = 10. Let J be the intersection of line segments DH and CF. The areas of $\triangle DFJ$ and $\triangle CJH$ are then shaded.



Determine the fraction of the area of square ABCD that is shaded.