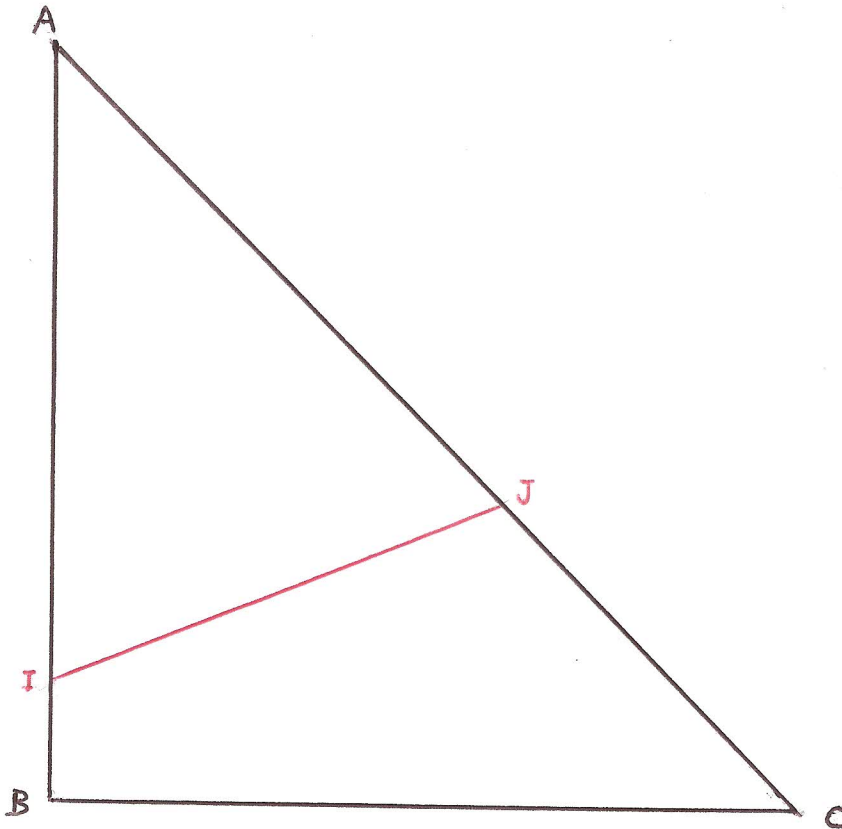


(A154747)

29th British Mathematical Olympiad, 1993, problem 2



Shortest line which divides the right isosceles triangle ABC into two parts of equal area.

$$\begin{aligned}BA &= BC = 1 \\AC &= \sqrt{2}\end{aligned}$$

$$IJ = \sqrt{\sqrt{2}-1} \text{ with } AI = AJ = 1/2^{(1/4)} = 1/\sqrt{\sqrt{2}}$$

Bernard Schott, 21/12/2020