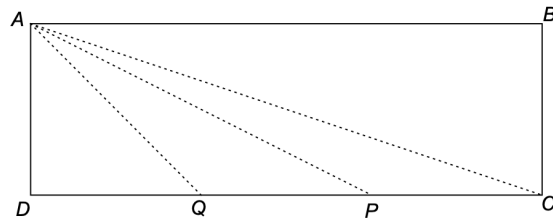


Problem 10. Let $ABCD$ be a rectangle with $AB = 3BC$. Points P and Q are on CD with Q between P and D , and

$$DQ = QP = PC,$$

as shown below. Prove that

$$\angle AQD = \angle APD + \angle ACD.$$



Solutions due by 12:00 noon, Monday, March 30. Solutions may be mailed to Elgin Johnston at ehjohnst@iastate.edu