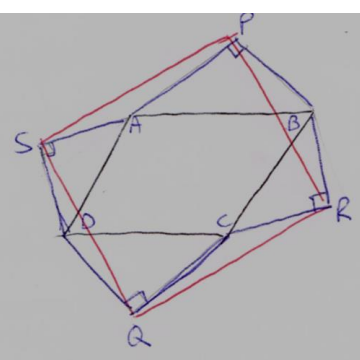


ו-21  
~~4-1~~



$$\angle SDQ = 45 + \angle ADC + 45 = 45 + \angle PBR + 45 = \angle PBR$$

$$\triangle APB \cong \triangle DQC \quad (S.S.S)$$

$$\Downarrow$$

$$PB = DQ$$

$$BR = SD \quad \text{מכיוון ש} \angle B = \angle D$$

$$(S.S.S) \triangle PBR \cong \triangle QDS \quad \Leftarrow$$

$$\triangle SAP \cong \triangle RCQ \quad \text{מכיוון ש} \angle A = \angle C$$

$$180 - \alpha = \angle BCD \quad \Leftarrow \angle ABC = \alpha \quad \text{מכיוון ש} \angle A = \angle C$$

$$\angle PBR = 45 + \alpha + 45 = 90 + \alpha$$

$$\angle RCQ = 360 - \angle BCD - 45 - 45 = 360 - (180 - \alpha) - 90 = 90 + \alpha$$

$$SP = PR = RQ = SQ \quad \Leftarrow \triangle PBR \cong \triangle QDS \cong \triangle RCQ \cong \triangle SAP \quad \text{מכיוון ש} \angle B = \angle D = \angle C = \angle A$$

$$\angle SPR = \beta + 90 - \beta = 90^\circ \quad \Leftarrow \angle APS = \beta = \angle BRP \quad \text{מכיוון ש} \angle A = \angle C$$

$\angle SPA = \angle APR$  מכיוון ש  $\angle A = 90^\circ$  והקווים  $SP$  ו- $PR$  חוצים את  $AC$  ו- $BD$  בנקודה אחת.