



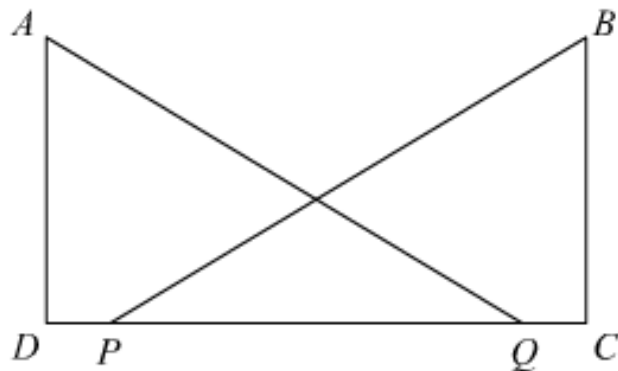
Congruent Triangles Ex 10.5 Q4

**Answer :**

It is given that

$AD \perp CD$  , and  $CB \perp CD$

If  $AQ = BP$  and  $DP = CQ$



We have to prove that  $\angle DAQ = \angle CBP$

In triangles  $ADQ$  and  $BCP$  we have

$DQ = PC$  (Since  $DP = QC$  given)

So  $DP + PQ = PQ + QC$

$\Rightarrow DQ = PC$

And  $AQ = BP$  (given)

$\angle ADQ = \angle BCP = 90^\circ$

So by right hand side congruence criterion we have

$\triangle ADQ \cong \triangle BCP$

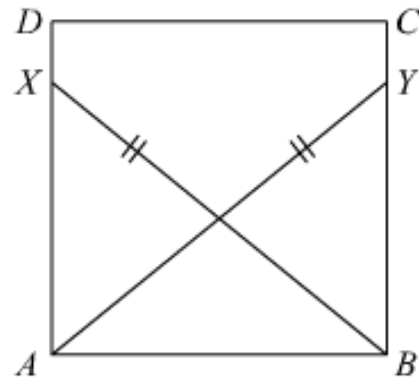
So  $\angle A = \angle B$

Hence  $\boxed{\angle DAQ = \angle CBP}$  Proved.

Congruent Triangles Ex 10.5 Q5

**Answer :**

It is given  $ABCD$  is a square and  $AY = BX$



We have to prove that  $BY = AX$  and  $\angle BAY = \angle ABX$

In right angled triangles  $\triangle BAY$  and  $\triangle ABX$  we have

$$AY = BX$$

And  $AB = AB$ , and

$$\angle ABY = \angle BAX = 90^\circ$$

So by right hand side congruence criterion we have

$$\triangle BAY \cong \triangle ABX$$

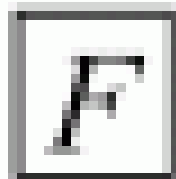
So  $BY = AX$  (since triangle is congruent)

Hence  $\boxed{\angle BAY = \angle ABX}$  Proved.

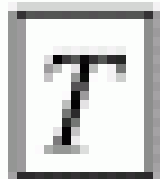
Congruent Triangles Ex 10.5 Q6

**Answer :**

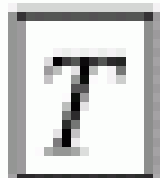
(1)



(2)



(3)



(4)	$F$
(5)	$T$
(6)	$F$
(7)	$F$
(8)	$F$
(9)	$T$

Congruent Triangles Ex 10.5 Q7

**Answer :**

(1) Equal

(2) Equal

(3) Equal

(4)  $BC$

(5)  $AC$

(6) Equal to

(7) EFD

\*\*\*\*\* END \*\*\*\*\*

