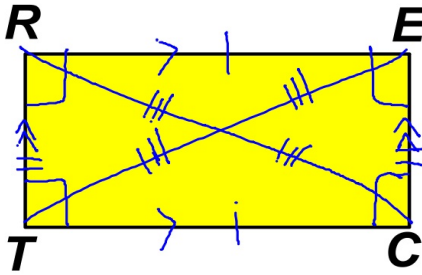


5-4 Special Parallelograms

Nov. 9, 2011

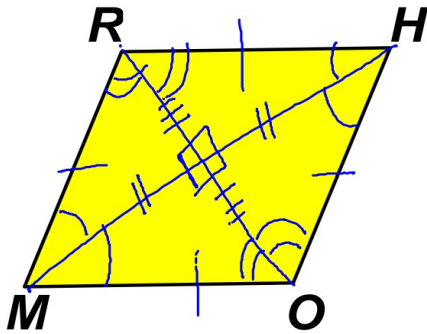
Def'n A rectangle is a parallelogram with 4 right angles.



properties

- ① all \square properties
- ② 4 \cong right \angle s
- ③ \cong diagonals

Def'n A rhombus is a parallelogram with 4 congruent sides. (plural: rhombi)

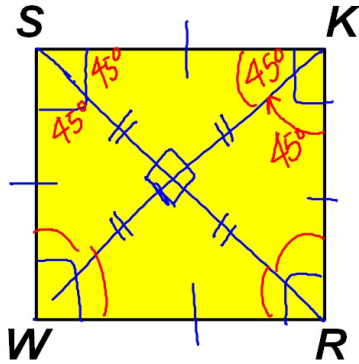


properties

- ① all \square properties
- ✓ ② 4 \cong sides
- ✓ ③ diagonals \perp ($\overline{RO} \perp \overline{HM}$)
- ✓ ④ diagonals bisect opp. \angle s.

Def'n

A square is a parallelogram with 4 right angles and 4 congruent sides.



properties

- ① all \square properties
- ② all rectangle properties
- ③ all rhombus properties

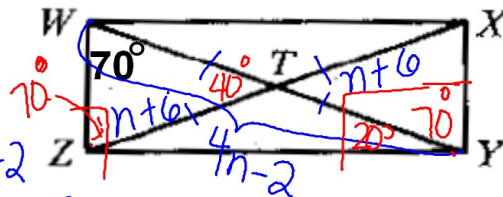
EXAMPLES

1. Rect. WXYZ

(a) $WY = 4n - 2$, $TX = n + 6$
find n

$$\begin{aligned} 2(n+6) &= 4n-2 \\ 2n+12 &= 4n-2 \\ 14 &= 2n \\ 7 &= n \end{aligned}$$

(b) $m\angle WTZ = \underline{40}$ and $m\angle WYZ = \underline{20}$
 $180-140$



2. rhombus *JACK*

$m\angle JAS = 35$

$m\angle JKC = 70$

$m\angle KJA = 110$

$m\angle KJS = 55$

$m\angle JSA = 90$

