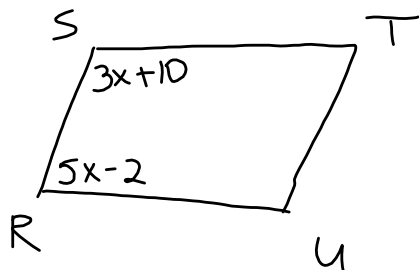


DO NOW

In parallelogram $RSTU$, $m\angle R = 5x - 2$ and $m\angle S = 3x + 10$. Determine and state the value of x .



$$3x+10+5x-2=180$$

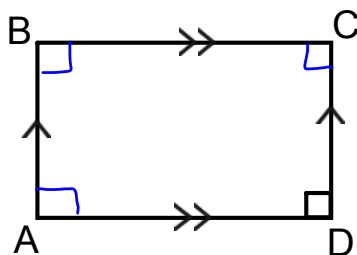
$$8x+8=180$$

$$8x=172$$

$$x=21.5$$

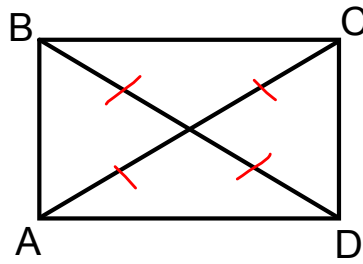
Jan 31-9:57 AM

A **rectangle** is a parallelogram with one right angle



Dec 10-10:26 AM

Properties of a Rectangle

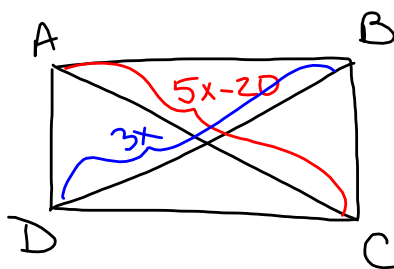


ALL the properties of a parallelogram PLUS:

- Four right angles
- The diagonals are congruent
 $\overline{AC} \cong \overline{BD}$

Dec 10-10:29 AM

- 1) In rectangle $ABCD$, $AC = 5x - 20$ and $BD = 3x$. Find AC .



$$AC = 5(10) - 20$$

$$\boxed{AC = 30}$$

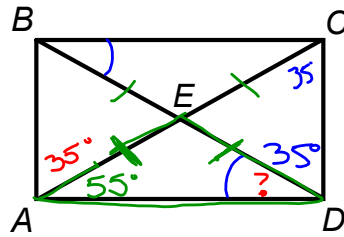
$$\begin{array}{r} 3x = 5x - 20 \\ -5x \quad -5x \\ \hline \end{array}$$

$$x = 10$$

$$\begin{array}{r} -2x = -20 \\ \hline -2 \quad -2 \end{array}$$

Dec 10-10:52 AM

2) In rectangle $ABCD$, $m\angle CAB = 35$. Find ~~$m\angle CDB$~~ $m\angle ADB$

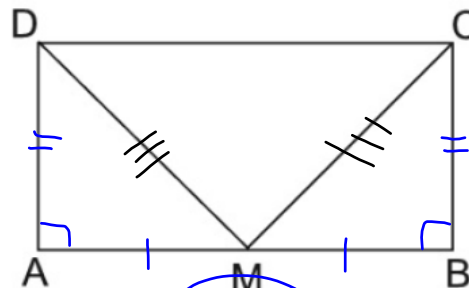


$m\angle ADB = 55^\circ$

Dec 10-10:47 AM

Given: $ABCD$ is a rectangle
 M is midpoint of \overline{AB}

Prove: $\overline{DM} \cong \overline{CM}$



Statements

Reasons

1)	1)
2) $\overline{AM} \cong \overline{BM}$	2) Midpt create 2 \cong seg.
3) $\angle A$ & $\angle B$ are right \angle 's	3) Rectangle has 4 rt \angle 's
4) $\angle A \cong \angle B$	4) R + \angle 's \cong
5) $\overline{AD} \cong \overline{BC}$	5) Opp. sides of a rectangle are \cong
6) $\triangle \cong \triangle$	6) SAS
7)	

Nov 29-10:02 AM