

10-30-17 5th Geo

① What is true if

$$\triangle ABC \cong \triangle TXN ?$$

$$\overline{AB} \cong \overline{TX}$$

$$\angle A \cong \angle T$$

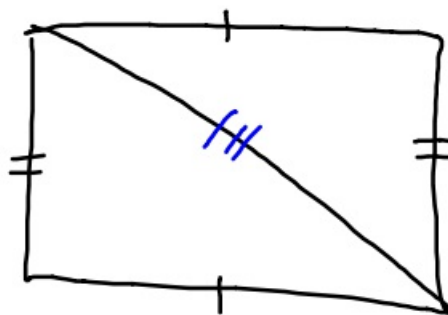
$$\overline{BC} \cong \overline{XN}$$

$$\angle B \cong \angle X$$

$$\overline{AC} \cong \overline{TN}$$

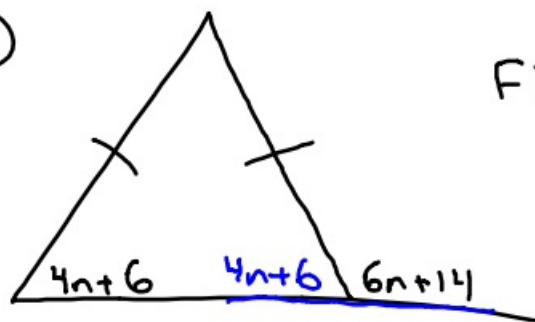
$$\angle C \cong \angle N$$

②



SSS

③



Find n .

$$4n+6+6n+14=180$$

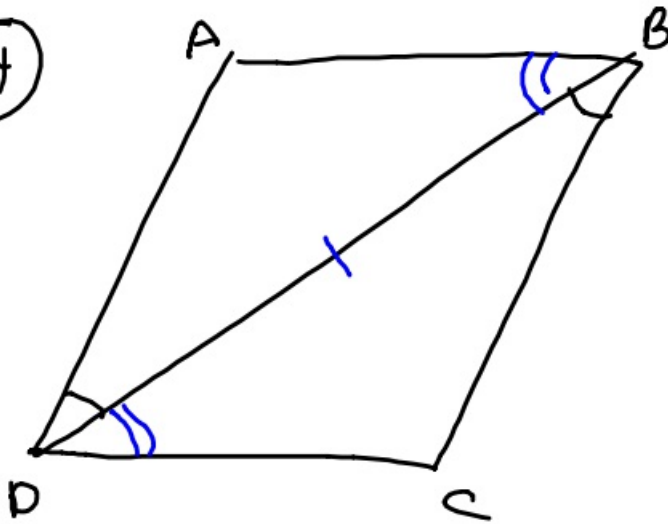
$$10n+20=180$$

$$\underline{-20 \quad -20}$$

$$10n = 160$$

$$n = 16$$

④



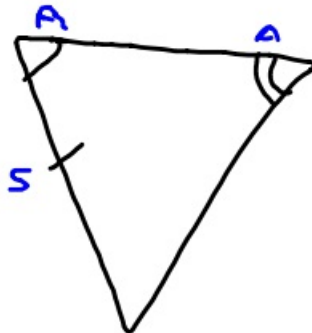
What must be true for $\triangle ABD \cong \triangle CDB$ by ASA?

$$\angle ABD = \angle CDB.$$

⑤

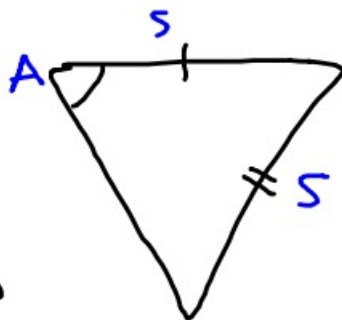
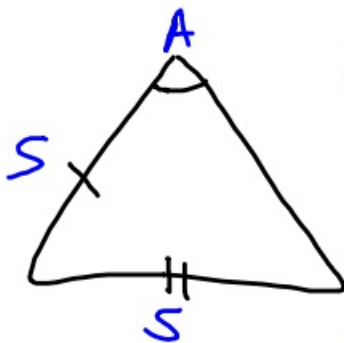


ASA

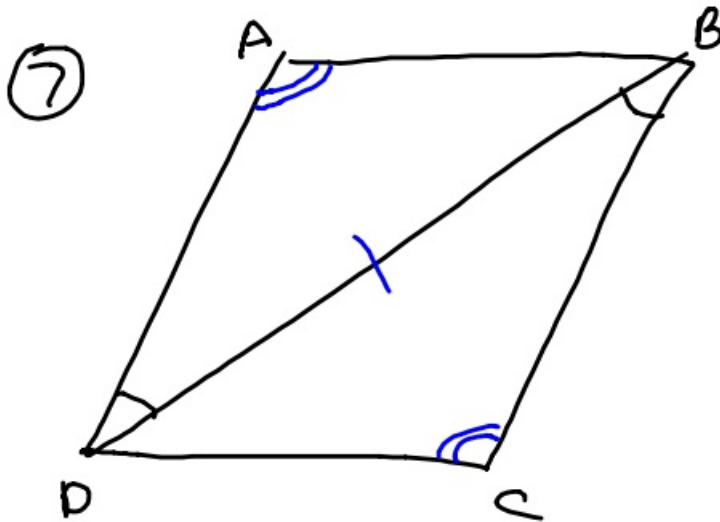


NP

⑥

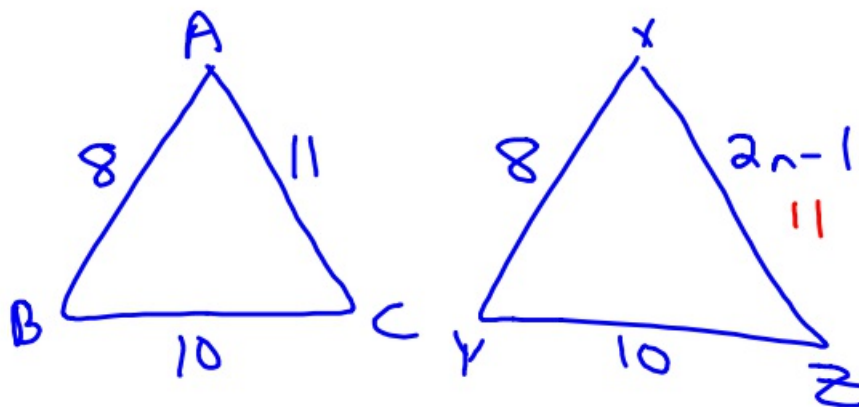


NP



What must be true for $\triangle ABD \cong \triangle CDB$ by AAS?
 $\angle C = \angle A$

⑧ If $\triangle ABC \cong \triangle XYZ$ with $AB = 8$, $BC = 10$, $AC = 11$, and $ZX = 2n - 1$, what is n ?



$$\begin{array}{r}
 2n - 1 = 11 \\
 +1 \quad +1 \\
 \hline
 2n = 12 \\
 n = 6
 \end{array}$$

⑨ Give the equation in slope intercept form that goes through $(2, 8)$ and is \perp to $y = -2x - 5$.

$$m = -2$$

$$\therefore \perp m = \frac{1}{2}$$

$$y - y_1 = m(x - x_1)$$

$$y - 8 = \frac{1}{2}(x - 2)$$

$$y - 8 = \frac{1}{2}x - 1$$

$$y = \frac{1}{2}x + 7$$

10-30-17 6th

- ① Give the equation in slope intercept form that goes through $(2, 8)$ and is \perp to $y = \frac{1}{3}x + 5$.

$$m = \frac{1}{3}$$

$$\therefore \perp = -3$$

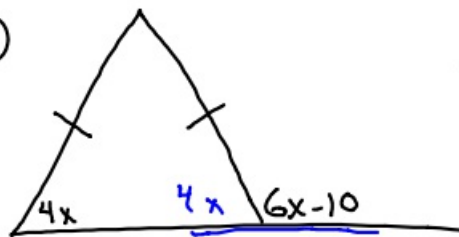
$$y - y_1 = m(x - x_1)$$

$$y - 8 = -3(x - 2)$$

$$\begin{array}{r} y - 8 = -3x + 6 \\ +8 \quad +8 \\ \hline \end{array}$$

$$y = -3x + 14$$

②



Find x .

$$4x + 6x - 10 = 180$$

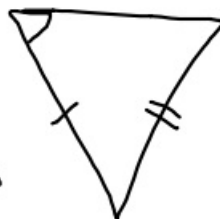
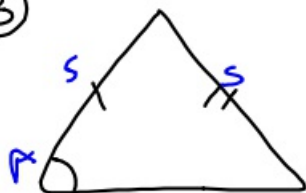
$$10x - 10 = 180$$

$$\begin{array}{r} +10 \quad +10 \\ \hline \end{array}$$

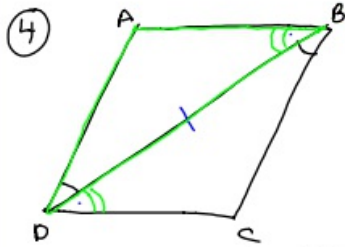
$$10x = 190$$

$$x = 19$$

③



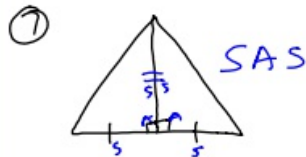
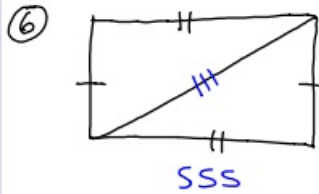
No



What must be true for $\triangle ABD \cong \triangle CDB$ by ASA?
 $\angle ABD = \angle CDB$

⑤ $\triangle ABC \cong \triangle XYZ$. What is true?

$$\begin{array}{ll} \overline{AC} \cong \overline{XZ} & \angle A \cong \angle X \\ \overline{AB} \cong \overline{XY} & \angle B \cong \angle Y \\ \overline{BC} \cong \overline{YZ} & \angle C \cong \angle Z \end{array}$$



⑧ In isosceles $\triangle ABC$, $\overline{AB} \cong \overline{BC}$. Find AC.

$$\begin{array}{r} 3n-4 = n+10 \\ -n \quad -n \\ \hline 2n-4 = 10 \\ +4 \quad +4 \\ \hline 2n = 14 \\ n = 7 \end{array}$$

$AC = 2 \cdot n - 7$
 $2 \cdot 7 - 7 = 7$