9-10-19 6th Geo

Properties

Reflexive

$\angle ABC = \angle ABC$

$a = a$

$8 = 8$

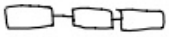
Symmetric

If $\angle 1 + \angle 2 = \angle 3$, so $\angle 3 = \angle 1 + \angle 2$

If $2+3=5$, so $5 = 2+3$

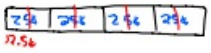
If $\overline{AN} = \overline{BC}$, then $\overline{BC} = \overline{AN}$

Transitive



If $a=b$ and $b=c$, then $a=c$

If $\overline{AN} \cong \overline{BC}$ and $\overline{BC} \cong \overline{XY}$, then $\overline{AN} \cong \overline{XY}$



Substitution

If $x=10$ and $x+y=z$, then

$10 + y = z$

If $\overline{AB} \cong \overline{XY}$ and $\overline{AB} + \overline{CD} \cong \overline{NT}$,

then $\overline{XY} + \overline{CD} \cong \overline{NT}$

Addition

$x - 6 = 10$

$+6 \quad +6$ ← addition

$x = 16$

If $x-6=10$, then $x=16$

Subtraction Postulate

$x + 4 = 5$

$-4 \quad -4$

$x = 1$

If $x+4=5$, then $x=1$

Multiplication

If $4 \cdot \frac{x}{4} = 5$, then $x = 20$.

Division

If $\frac{4x}{4} = \frac{12}{4}$, then $x=3$

① If $\angle ABC + \angle XYZ = \angle NTR + \angle XYZ$, then $\angle ABC = \angle NTR$.

Subtraction ($\angle XYZ$)

② If $XY - 10 = BC$, then $XY = BC + 10$.

Addition ($+10$)

③ If $\overline{AB} \cong \overline{BC}$ and $\overline{AB} + \overline{XY} \cong \overline{TR}$, then $\overline{BC} + \overline{XY} \cong \overline{TR}$.

Substitution

④ Momma = Momma

Reflexive

⑤ If $AB = \overline{2}$ and $\overline{2} = XY$, then $AB = XY$

Transitive

⑥ If $\overline{AN} \cong \overline{XY}$, then $\overline{XY} \cong \overline{AN}$.

Symmetric

⑦ If $\frac{XY}{2} = BC$, then $XY = 2 \cdot BC$.

multiplication

9-10-19 7th Geo

Reflexive

$\angle ABC = \angle ABC$

$8 = 8$

$1+2 = 1+2$

momma = momma

$\overline{AD} = \overline{AD}$

Symmetric

If $\overline{AB} \cong \overline{BC}$, then $\overline{BC} \cong \overline{AB}$.

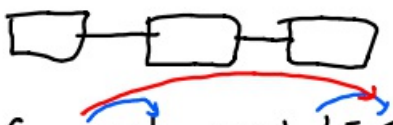
If $2+3=5$, then $5=2+3$.

Substitution

If $a=2$ and $a+7=y$, then $2+7=y$.

If $\overline{XY}=3$ and $\overline{XY}+\overline{BC}=\overline{RT}$, then $3+\overline{BC}=\overline{RT}$.

Transitive



If $a=b$ and $b=c$, then $a=c$

If $\overline{XY} \cong \overline{BC}$ and $\overline{BC} \cong \overline{RN}$, then $\overline{XY} \cong \overline{RN}$

Addition

If $x - 4 = 10$, then $x = 14$

$+4 \quad +4$

If $\overline{AB} - \overline{BC} = \overline{XY}$, then

$+\overline{BC} \quad +\overline{BC}$

$\overline{AB} = \overline{XY} + \overline{BC}$

Subtraction

If $a + 7 = y$, then $a = y - 7$

$-7 \quad -7$

Multiplication

If $2 \cdot \frac{a}{2} = 2 \cdot y$, then $a = 2y$

Division

If $\frac{4a}{4} = \frac{y}{4}$, then $a = \frac{y}{4}$

① If $\overline{AN} - \overline{XY} = \overline{BC}$, then

$+\overline{XY} \quad +\overline{XY}$

$\overline{AN} = \overline{BC} + \overline{XY}$. Addition

② If $\overline{AT} + 6 = 14$, then $\overline{AT} = 8$.

$-6 \quad -6$

Subtraction

③ Cecil = Cecil

Reflexive

(4) If $\overline{AB} + 5 = 12$, then

$3\overline{AB} + 15 = 36.$

Multiplication ($\times 3$)

(5) If $\overline{AB} \cong \overline{XY}$, then $\overline{XY} \cong \overline{AB}$.

Symmetric

(6) If $\overline{AB} \cong \overline{BC}$ and $\overline{AB} + \overline{TR} \cong \overline{XY}$,

then $\overline{BC} + \overline{TR} \cong \overline{XY}$

Substitution