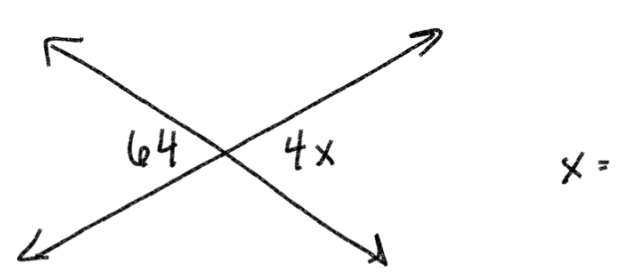
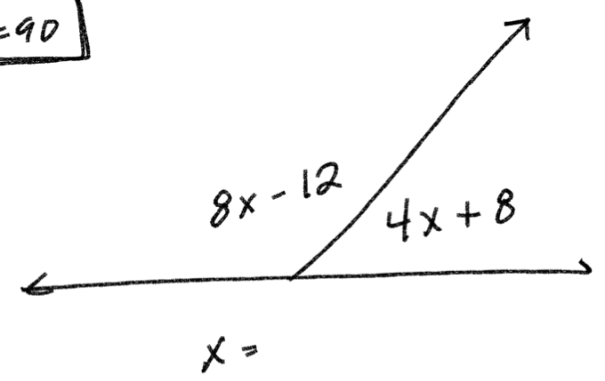
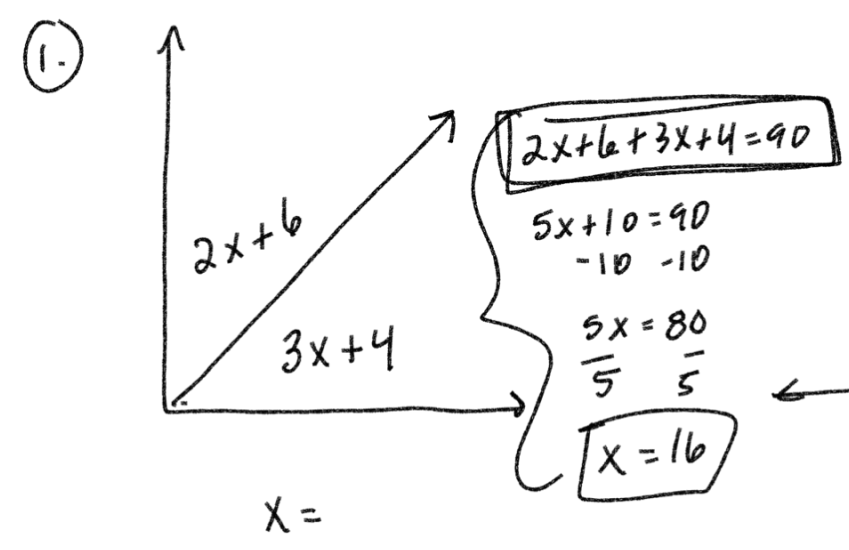
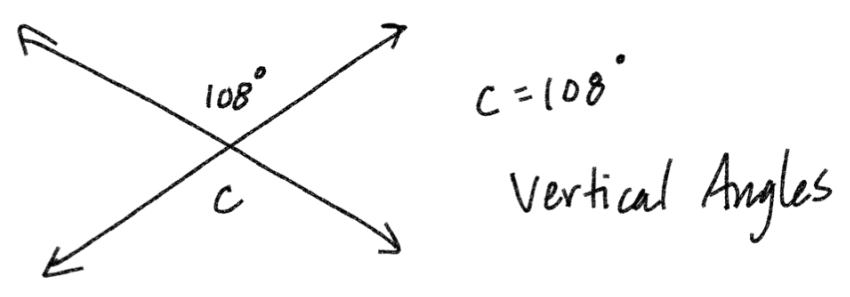
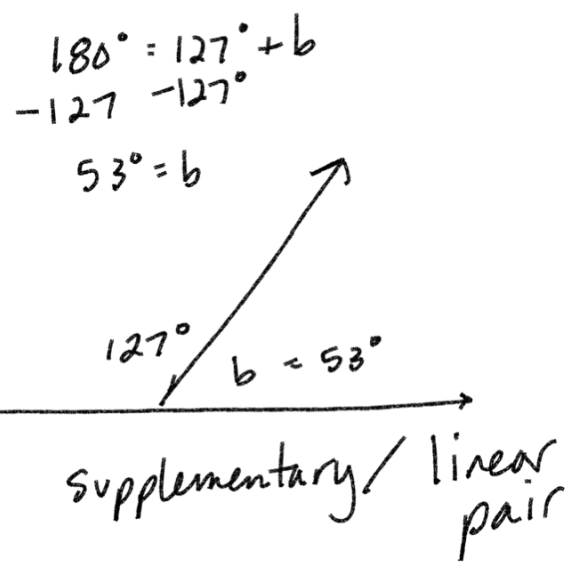
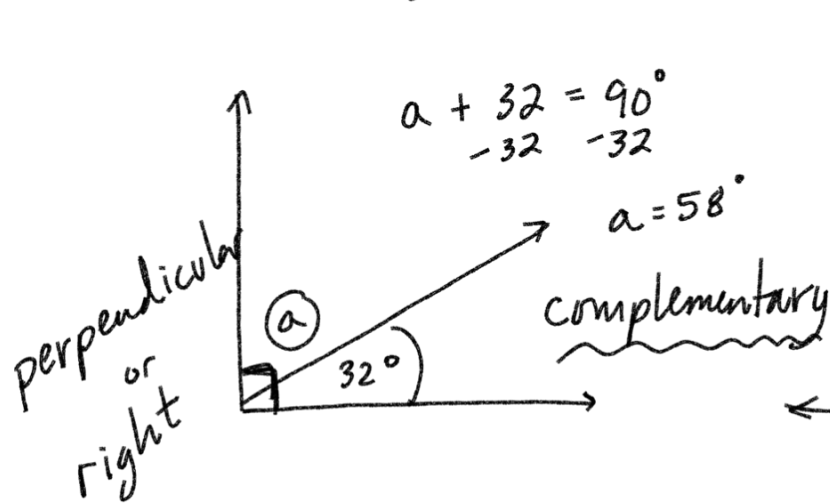
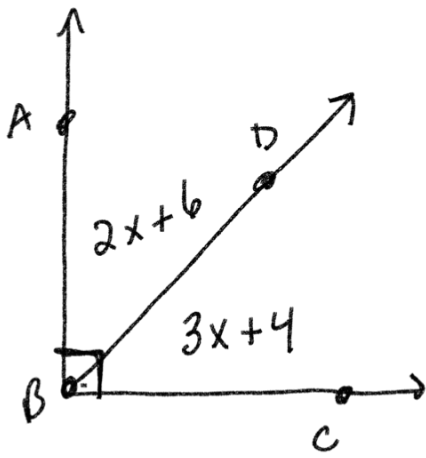
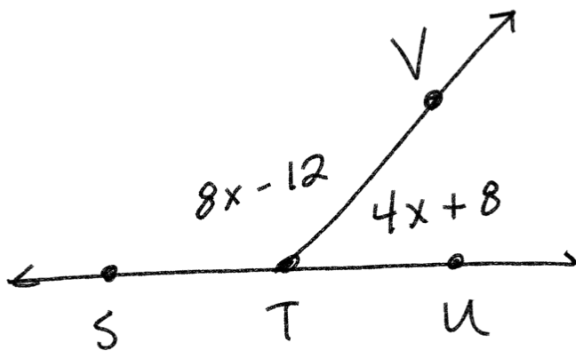


TH-6 Geometry Week 9

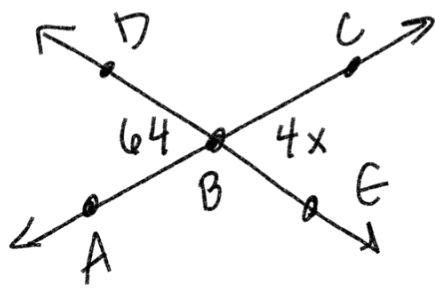




statement s	reasons
$\angle ABC = 90^\circ$	Complementary
or	
$\angle ABD + \angle DBC = 90^\circ$	Substitution
$\downarrow \quad \quad \downarrow$ $2x + 6 + 3x + 4 = 90^\circ$	
$5x + 10 = 90^\circ$	Simplify
$5x = 80$	Subtraction
$x = 16$	Division



Statement	Reason
$\angle STV + \angle VTU = 180^\circ$	Supplementary or Linear Pair
$8x - 12 + 4x + 8 = 180^\circ$	Substitution
$12x - 4 = 184$	Simplify
$\quad + 4 \quad + 4$	Add
$12x = 188$	Divide
$x = 15.\bar{6}$	



statement
 $\angle ABD \cong \angle CBE$
 $64 = 4x$
 $16 = x$

reasons
 vertical angles
 substitution
 Division

Given: $3(5x + 1) = 13x + 5$

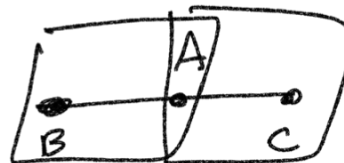
Prove: $x = 1$

statement
 $3(5x + 1) = 13x + 5$
 $15x + 3 = 13x + 5$
 $\quad -3 \quad -3$
 $15x = 13x + 2$
 $\quad -13x \quad -13x$
 $2x = 2$
 $x = 1$

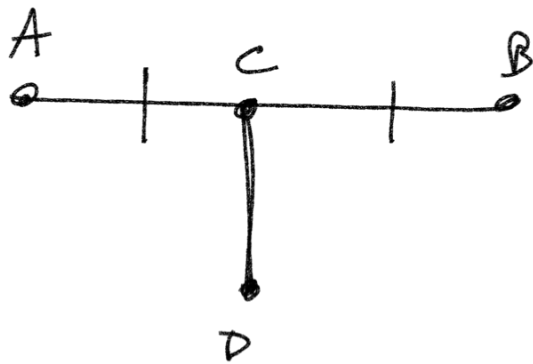
reason
 Given
 Distribution
 subtraction
 subtraction
 Divide

Given A is midpoint
 of BC

Statement
 $\overline{AB} \cong \overline{AC}$



Reason
 Definition of Midpoint

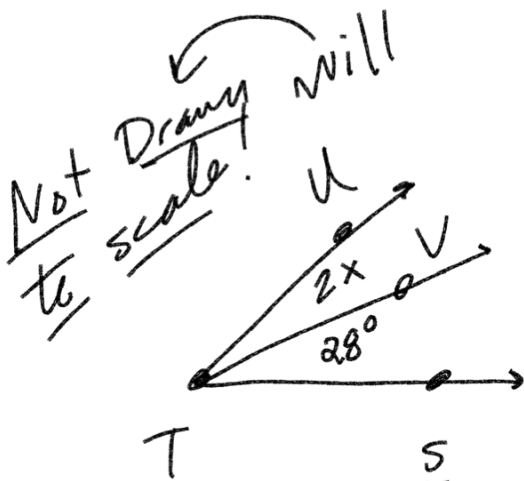


Given \overline{CD} is
a segment bisector
of \overline{BA}

statement

$$\overline{AC} \cong \overline{CB}$$

Def. segment bisector



Given \overline{TV} is an
angle bisector of
 $\angle UTS$

statement

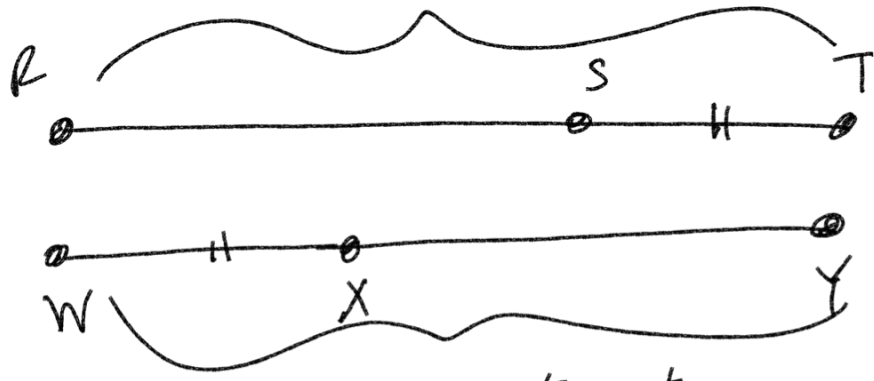
$$\angle UTV \cong \angle VTS$$

$$\downarrow \quad \downarrow$$

$$2x = 28$$

$$x = 14$$

Reason
Definition of Angle
Bisector
Substitution
Division



Given $\overline{RT} \cong \overline{WY}$
 $\overline{ST} \cong \overline{WX}$
 Prove: $\overline{RS} \cong \overline{XY}$

Statement
 $\overline{RS} + \overline{ST} = \overline{RT}$
 $\overline{XY} + \overline{XW} = \overline{WY}$

Reason
 { Segment Addition Postulate
 Given
 Substitution
 Given
 Substitution
 Subtraction

$\overline{RT} \cong \overline{WY}$
 $\overline{RS} + \overline{ST} = \overline{XY} + \overline{XW}$
 $\overline{ST} \cong \overline{WX}$

$$\overline{RS} + \overline{ST} \cong \overline{XY} + \overline{ST} - \overline{ST}$$

$$\overline{RS} \cong \overline{XY}$$

Tom's Website
 Quiz 7
 due tonight

Quiz 8
 due Oct 29th
classmate

Online HW
 Quiz 9 (Sat)
 due Nov 5th
Pre-Test

