

1/26 Aim: Addition and Subtraction postulate

Do now:

Homework - Worksheet

# Quiz Friday

Dec 23-6:51 AM

Given:  $m\angle 1 = m\angle 2$   
 $m\angle 3 = m\angle 4$   
 Prove:  $m\angle QPS = m\angle QRS$

Statements	Reasons
① $\angle 1 \cong \angle 2$ $\angle 3 \cong \angle 4$	① given
② $\angle 1 + \angle 3 \cong \angle 2 + \angle 4$ $\angle QPS \cong \angle QRS$	② addition postulate

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Statements	Reasons
① $CD \cong CE$ $DA \cong EB$	① given
② $CD + DA \cong CE + EB$ $CA \cong CB$	② addition property

Given:  $CD = CE$   
 $DA = EB$   
 Prove:  $CA = CB$

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Statements	Reasons
① $\angle ABC \cong \angle DCB$ $\angle a \cong \angle b$	① given
② $\angle ABC - \angle a \cong \angle DCB - \angle b$ $\angle x \cong \angle y$	② subtraction property

Given:  $m\angle ABC = m\angle DCB$   
 $m\angle a = m\angle b$   
 Prove:  $m\angle x = m\angle y$

Dec 23-8:22 AM

Statements	Reasons
① $DA \cong CB$ $DE \cong CF$	① given
② $DA - DE \cong CB - CF$ $EA \cong FB$	② subtraction property

Given:  $DA = CB$   
 $DE = CF$   
 Prove:  $EA = FB$

Dec 23-8:29 AM

5. If  $\overline{DF} \cong \overline{BE}$   
 then  $\overline{DE} \cong \overline{BF}$

Statements	Reasons
① $DF \cong BE$	① given
② $EF \cong EF$	② reflexive property
③ $DF + EF \cong BE + EF$ $FB \cong ED$	③ addition postulate

Dec 23-8:33 AM

If  $\angle LQM \cong \angle NQP$   
then  $\angle LQN \cong \angle MQP$

Statements	Reasons

Dec 23-8:39 AM

Statements	Reasons
① $\angle a \cong \angle b$	① given
② $\angle a + \angle 1 = 180^\circ$ $\angle b + \angle 2 = 180^\circ$	② $\angle$ 's that form a linear pair are supplementary
③ $\angle a + \angle 1 = \angle b + \angle 2$	③ Substitution
④ $\angle 1 = \angle 2$	④ subtraction postulate

If  $\overleftrightarrow{ACFG}$  and  $\overleftrightarrow{BCDE}$  intersect and  $m\angle a = m\angle b$   
Then  $m\angle ADC = m\angle BFC$

Dec 23-8:44 AM

Statements	Reasons

If  $\overleftrightarrow{EF}$  intersects  $\overleftrightarrow{AB}$  and  $\overleftrightarrow{DC}$ ,  
and  $\angle 3 \cong \angle 2$   
Then  $\angle 1 \cong \angle 3$

Dec 23-8:50 AM

Given:  $\overline{AE} \cong \overline{AC}$   
 $\overline{DE} \cong \overline{BC}$   
Prove:  $\overline{AD} \cong \overline{AB}$

Statements	Reasons

Dec 23-8:56 AM

10.

Statements	Reasons

Given:  $\angle 1 \cong \angle 2$   
 $\angle 3 \cong \angle 4$   
Prove:  $\angle ADB \cong \angle ADC$

Dec 23-9:06 AM

Statements	Reasons

Given:  $\overline{AB} \cong \overline{DC}$   
P is midpoint of  $\overline{AB}$   
S is midpoint of  $\overline{DC}$   
Prove:  $\overline{BP} \cong \overline{CS}$

Dec 23-9:12 AM

Given:  $\overline{AB} \cong \overline{CD}$   
 Prove:  $\overline{AD} \cong \overline{BC}$

Statements	Reasons

Dec 23-9:24 AM

Given:  $\angle 1 \cong \angle 3$   
 Prove:  $\angle AEC \cong \angle DEB$

Statements	Reasons
① $\angle 1 \cong \angle 3$	① given
② $\angle 2 \cong \angle 2$	② reflexive property
③ $\angle 1 + \angle 2 \cong \angle 3 + \angle 2$	③ addition postulate
$\angle AEC \cong \angle DEB$	

Dec 23-9:28 AM

Given:  $\overline{AB} \cong \overline{CD}$   
 Prove:  $\overline{AC} \cong \overline{BD}$

Statements	Reasons

Dec 23-9:28 AM

Given:  $\angle BCE \cong \angle DCE$   
 $\overline{AC}$  bisects  $\angle BAD$   
 Prove:  $\triangle ABC \cong \triangle ADC$

Statements	Reasons
① $\angle BCE \cong \angle DCE$	① given
② $\angle 1 \cong \angle 2$	② An angle bisector divides an angle into 2 congruent angles
③ $\angle 5 \cong \angle 1 + \angle 2$	③ An exterior angle of a triangle is the sum of the remote interior angles.
$\angle 6 \cong \angle 2 + \angle 4$	
④ $\angle 1 + \angle 2 = \angle 2 + \angle 4$	④ substitution
⑤ $\angle B \cong \angle D$	⑤ subtraction
⑥ $AC \cong AC$	⑥ reflexive
⑦ $\triangle ABC \cong \triangle ADC$	⑦ AAS $\cong$ AAS

Jan 22-8:01 AM

Given:  $\overline{SM} \perp$  bisector of  $\overline{LP}$   
 $RM \cong MQ$   
 $\angle a \cong \angle b$   
 Prove:  $\triangle RLM \cong \triangle QPM$

Statement	Reason
① $SM \perp$ bisector of $LP$ $RM \cong MQ$ $\angle a \cong \angle b$	① given
② $\angle a + \angle 1 = 90^\circ$ $\angle b + \angle 2 = 90^\circ$	② L lines form right angles
③ $\angle a + \angle 1 = \angle b + \angle 2$	③ substitution
④ $\angle 1 \cong \angle 2$	④ subtraction
⑤ $LM \cong MP$	⑤ A bisector divides a segment into 2 congruent segments
⑥ $\triangle RLM \cong \triangle QPM$	⑥ SAS $\cong$ SAS

Jan 22-8:27 AM

Given:  $\overline{AB} \cong \overline{ED}$   
 $\overline{FE} \cong \overline{CB}$   
 $\overline{FE} \perp \overline{AD}$   
 $\overline{CB} \perp \overline{AD}$   
 Prove:  $\triangle AEF \cong \triangle CBD$

Jan 22-8:34 AM

Given:  $\overline{DA}$  bisects  $\angle BDF$   
 $\angle 1 \cong \angle 2$   
 $\overline{CD} \cong \overline{DE}$   
 Prove:  $\triangle CDA \cong \triangle EDA$

Jan 22-8:42 AM

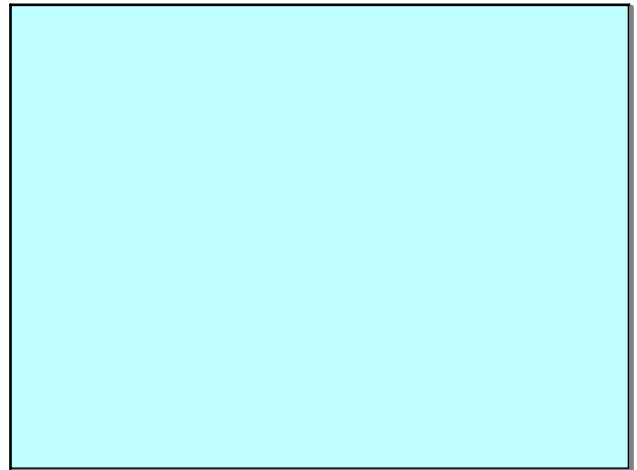
Given:  $\overline{SU} \cong \overline{QR}$   
 $\overline{PS} \cong \overline{RT}$   
 $\angle PSU \cong \angle QRT$   
 Prove:  $\triangle PQR \cong \triangle STU$

Jan 22-8:49 AM

Given:  $\overline{AE} \perp \overline{DB}$   
 $\overline{CF} \perp \overline{DB}$   
 $\overline{DE} \cong \overline{CF}$   
 $\overline{DC} \cong \overline{AB}$   
 Prove:  $\triangle ABE \cong \triangle CDF$

Statement	Reason
① $\overline{AE} \perp \overline{DB}$ $\overline{CF} \perp \overline{DB}$	① given
② $\angle 1$ and $\angle 2$ are right $\angle$ s	② ASA
③ $\angle 1 \cong \angle 2$	③ L lines form right $\angle$ s
④ $\overline{EF} \cong \overline{EF}$	④ Reflexive prop
⑤ $\overline{DE} + \overline{EF} \cong \overline{DF}$ $\overline{CF} + \overline{EF} \cong \overline{CE}$	⑤ Addition prop
⑥ $\triangle ABE \cong \triangle CDF$	⑥ HL

Jan 22-8:12 AM



Dec 23-6:51 AM



Dec 23-6:51 AM



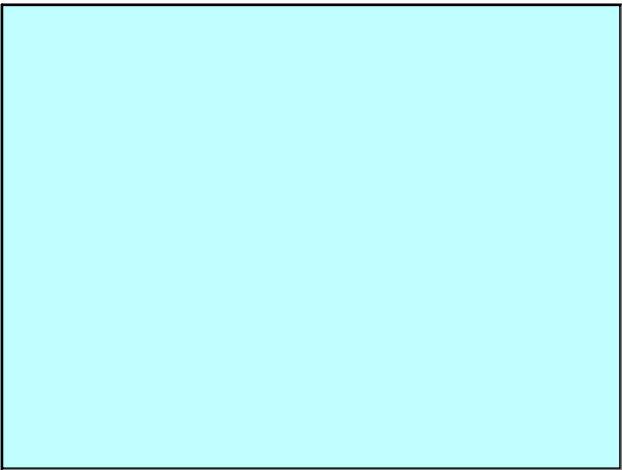
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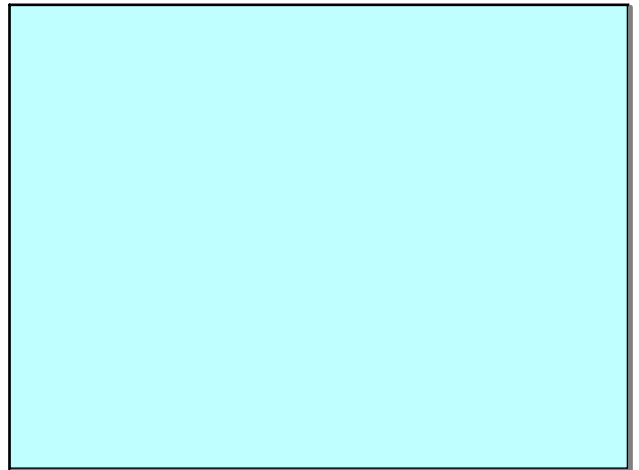
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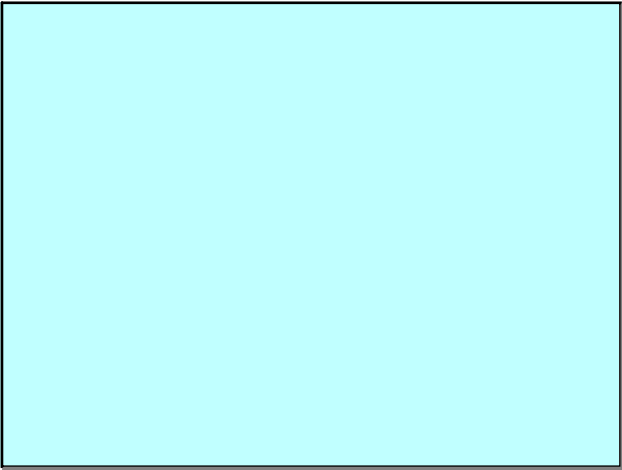
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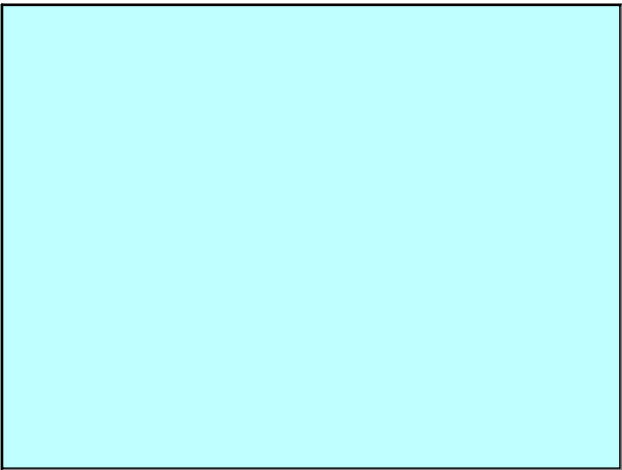
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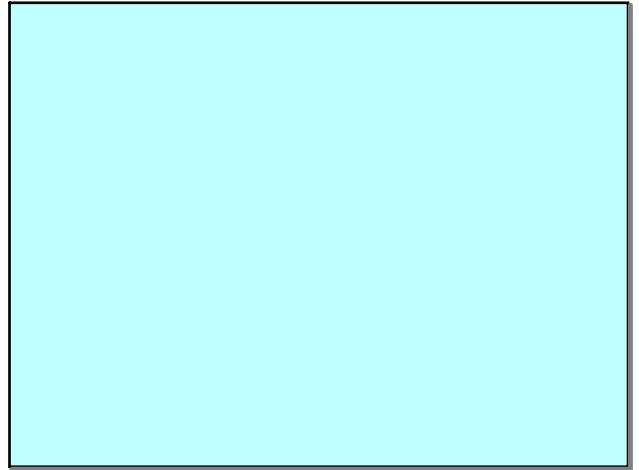
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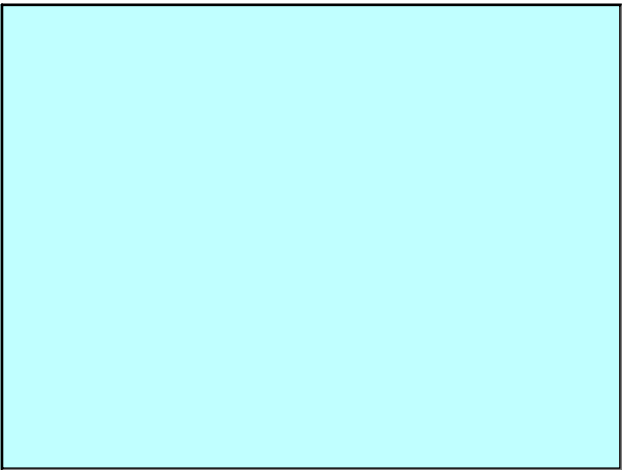
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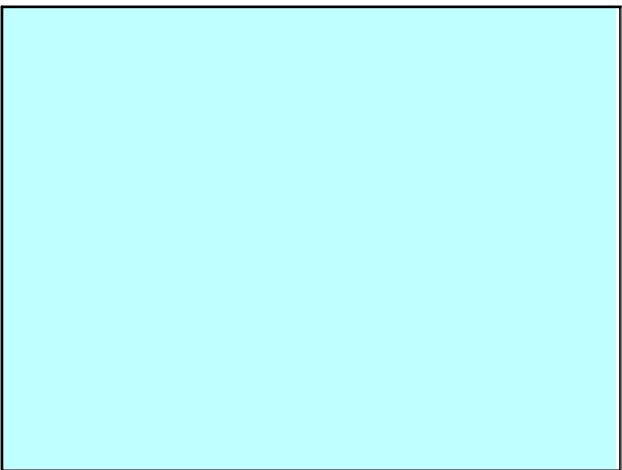
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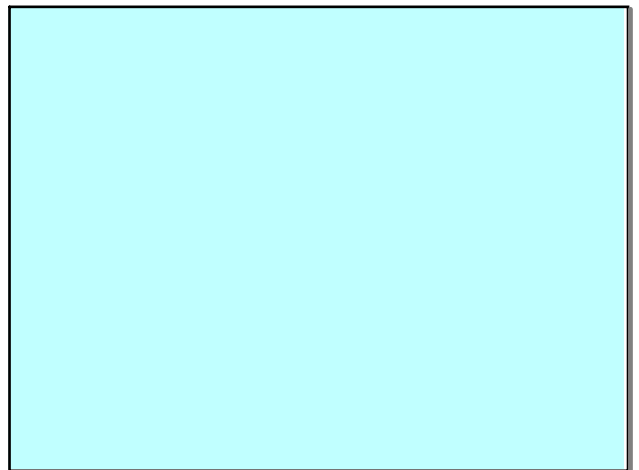
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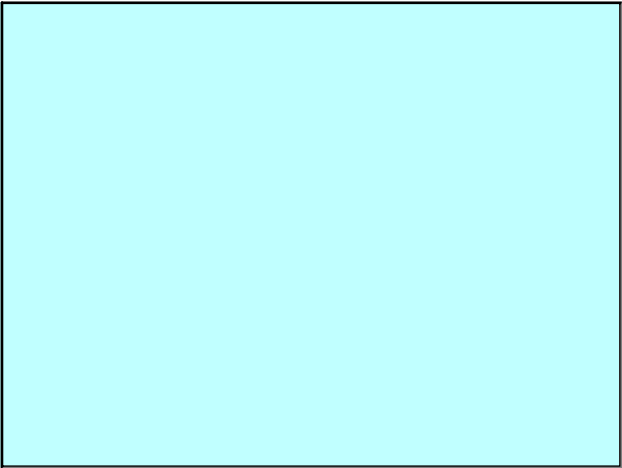
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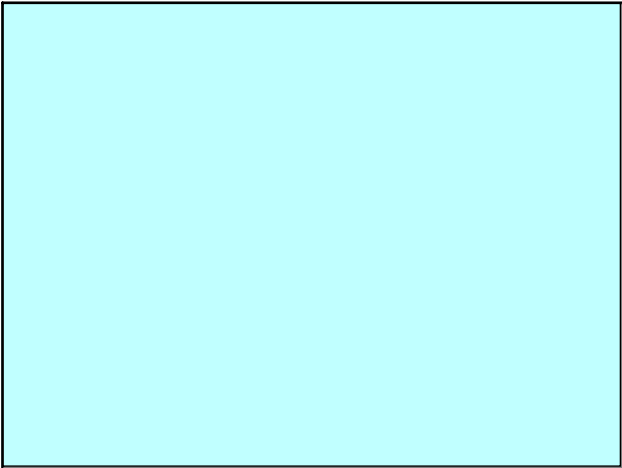
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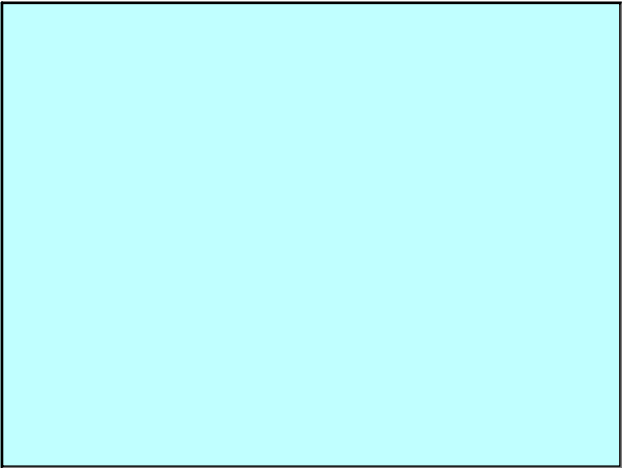
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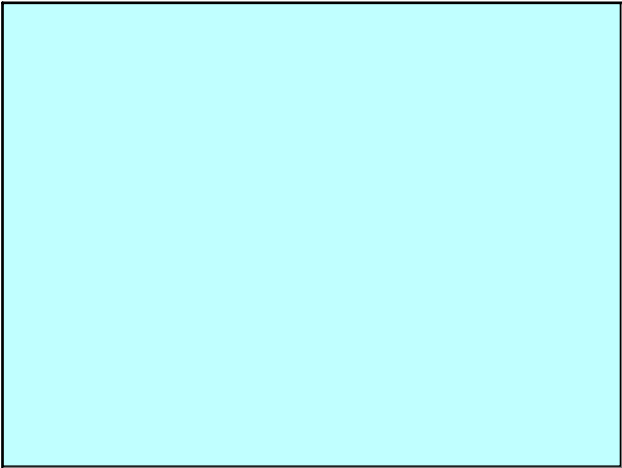
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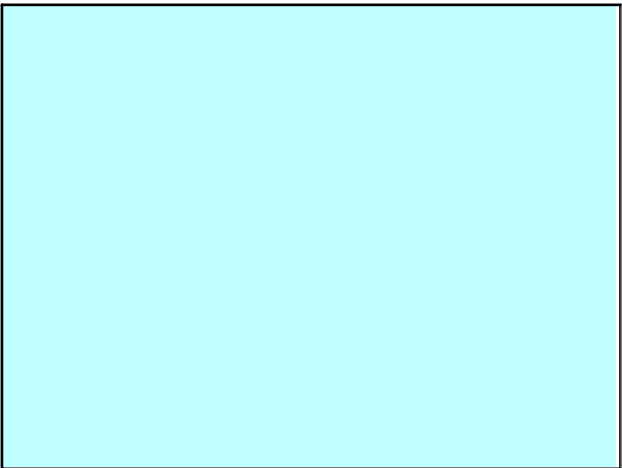
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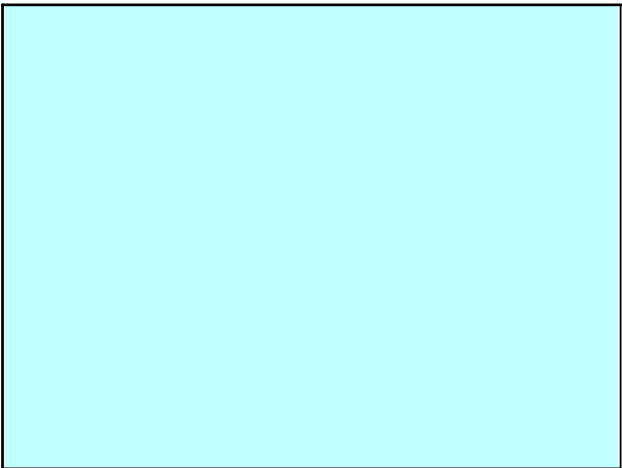
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