Lesson 27: Triangle Congruency Proofs



Classwork

Exercises

1. Given: $AB=AC,$ $RB=RC$.

Prove: $SB=SC$.



1. Given: Square $ABCS≅$ Square $EFGS,$

$\overleftrightarrow{RAB}$, $\overleftrightarrow{REF}$.

Prove: $△ASR≅ESR$.

1. Given: $JK=JL, JX=JY.$

Prove: $KX=LY$.







1. Given: $AD⊥DR$,$ AB⊥BR$,

$\overbar{AD}≅\overbar{AB}$.

Prove: $∠DCR=∠BCR$.

1. Given: $AR=AS, BR=CS$,

$RX⊥AB$,$ SY⊥AC$.

Prove: $BX=CY$.



1. Given: $AX=BX$, $∠AMB=∠AYZ=90°$.

Prove: $NY=NM$.

Problem Set

Use your knowledge of triangle congruence criteria to write a proof for the following:

In the figure $\overbar{BE}≅\overbar{CE}$, $DC⊥AB$, $BE⊥AC$, prove $\overbar{AE}≅\overbar{RE}.$