Proofs on the Ch. 2 Test

If $3(x-\frac{5}{3})=1$, then $x=2$.

	Statements	Reasons
1.	$3(x-\frac{5}{3})=1$	1. Given
2.	$3x-5=1$	2. Distributive
3.	$3x=6$	3. Addition
4.	$x=2$	4. Division

Given: $PQ = RS$ Prove: $PR = QS$

Statements	Reasons
1. $PQ = RS$	1. Given
2. $PQ + QR = RS + QR$	2. Addition
3. $PR = PQ + QR$ $QS = QR + RS$	3. Segment Addition Postulate
4. $PR = QS$	4. Substitution

Given: $\angle 1$ and $\angle 3$ are complementary
$\angle 2$ and $\angle 3$ are complementary

Prove: $\angle 1 \cong \angle 2$

Statements	Reasons
1. $\angle 1, \angle 3$ complementary $\angle 2, \angle 3$ complementary	1. Given
2. $m\angle 1 + m\angle 3 = 90$ $m\angle 2 + m\angle 3 = 90$	2. definition of complementary
3. $m\angle 1 + m\angle 3 = m\angle 2 + m\angle 3$	3. substitution
4. $m\angle 1 = m\angle 2$	4. subtraction
5. $\angle 1 \cong \angle 2$	5. definition of $\cong$