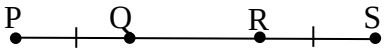
Name_____ Date_____

Mr.D

2.5 - Proofs About Angle Pairs and Segments (Part 1)

1) Given: $PQ = RS$

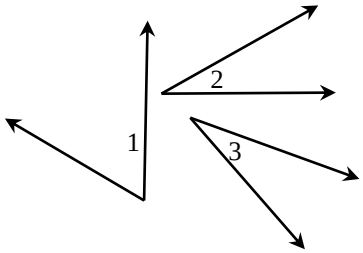
Prove: $PR = QS$



Statement	Reasons
1. $PQ = RS$	_____
2. $PQ + QR = RS + QR$	_____
3. $PQ + QR = PR$	_____
4. $RS + QR = QS$	_____
5. $PR = QS$	_____

2) Given: $\angle 1$ is a complement of $\angle 2$
$\angle 2 \cong \angle 3$

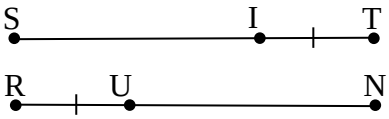
Prove: $\angle 1$ is a complement of $\angle 3$



Statement	Reasons
1. $\angle 1$ is a complement of $\angle 2$	_____
2. $m\angle 1 + m\angle 2 = 90$	_____
3. $\angle 2 \cong \angle 3$	_____
4. $m\angle 2 = m\angle 3$	_____
5. $m\angle 1 + m\angle 3 = 90$	_____
6. $\angle 1$ is a complement of $\angle 3$	_____

3) Given: $ST = RN$; $IT = RU$

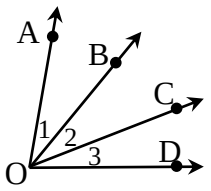
Prove: $SI = UN$



Statement	Reasons
1. $ST = RN$	_____
2. _____ $= SI + IT$; _____ $= RU + UN$	_____
3. $SI + IT = RU + UN$	_____
4. $IT = RU$	_____
5. _____	_____

4) Given: $m\angle AOD$ as shown

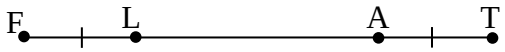
Prove: $m\angle AOD = m\angle 1 + m\angle 2 + m\angle 3$



Statement	Reasons
1. $m\angle AOD = m\angle AOC + m\angle 3$	_____
2. $m\angle AOC = m\angle 1 + m\angle 2$	_____
3. _____	_____

5) Given: $FL = AT$

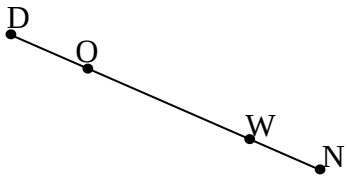
Prove: $FA = LT$



Statement	Reasons
1. _____	_____
2. $LA = LA$	_____
3. $FL + LA = AT + LA$	_____
4. $FL + LA = FA$; $LA + AT = LT$	_____
5. _____	_____

6) Given: $DW = ON$

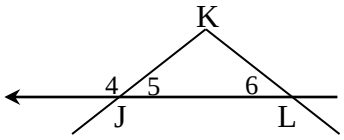
Prove: $DO = WN$



Statement	Reasons
1. $DW = ON$	_____
2. $DW = DO + OW$; $ON =$ _____ + _____	_____
3. _____	_____
4. $OW = OW$	_____
5. _____	_____

7) Given: $m\angle 4 + m\angle 6 = 180$

Prove: $m\angle 5 = m\angle 6$



Statement	Reasons
1. $m\angle 4 + m\angle 6 = 180$	_____
2. $m\angle 4 + m\angle 5 = 180$	_____
3. $m\angle 4 + m\angle 5 = m\angle 4 + m\angle 6$	_____
4. $m\angle 4 = m\angle 4$	_____
5. _____	_____