#1 3 More Proofs Answers.

1. $\angle 1 \cong \angle 4$ and $\angle 2 \cong \angle 5$	1. Given
2. $m\angle 1 = m\angle 4$ and $m\angle 2 = m\angle 5$	2. defn. of congruent angles
3. $m\angle 1 + m\angle 2 = m\angle 3$ $m\angle 4 + m\angle 5 = m\angle 6$	3. Partian Postulate
4. $m\angle 1 + m\angle 2 = m\angle 6$	4. Substitution
5. $m\angle 3 = m\angle 6$	5. transitive.
6. $\angle 3 \cong \angle 6$	6. ∅ defn of congruent angles.

#2

① $\angle NQR \cong \angle MQP$	① given
② $m\angle NQR = m\angle MQP$	② defn. of congruent angles.
③ $m\angle 1 + m\angle 2 = m\angle NQR$	③ & ④ Part. Postulate.
④ $m\angle 3 + m\angle$ [redacted] $= m\angle MQP$	
⑤ $m\angle 1 + m\angle 2 = m\angle MQP$	⑤ Substitution
⑥ $m\angle 2 = m\angle 2$	⑥ reflexive
⑦ $m\angle 1 = m\angle MQP - m\angle 2$ $m\angle 3 = m\angle MQP - m\angle 2$	⑦ Add. prop. of =.
⑧ $m\angle 1 = m\angle 3$	⑧ Substitution (transitive)

#3

① $m\angle 2 = m\angle 3$	① given
② $\angle 1$ and $\angle 2$ are supplementary. $\angle 3$ and $\angle 4$	② 2 angles that form a linear pair are supplementary.
③ $m\angle 1 + m\angle 2 = 180$ $m\angle 3 + m\angle 4 = 180$	③ supplementary angles add to 180.
④ $m\angle 2 + m\angle 4 = 180$	④ substitution
⑤ $m\angle 2 = m\angle 2$	⑤ reflexive
⑥ $m\angle 1 = 180 - m\angle 2$ $m\angle 4 = 180 - m\angle 2$	⑥ Add. prop. of equ.
⑦ $m\angle 1 = m\angle 4$	⑦ transitive.