

3 More Proofs Answers.

#1 .

1. $\angle 1 \cong \angle 4$ and $\angle 2 \cong \angle 5$
2. $m\angle 1 = m\angle 4$ and $m\angle 2 = m\angle 5$
3. $m\angle 1 + m\angle 2 = m\angle 3$
 $m\angle 4 + m\angle 5 = m\angle 6$
4. $m\angle 1 + m\angle 2 = m\angle 6$
5. $m\angle 3 = m\angle 6$
6. $\angle 3 \cong \angle 6$

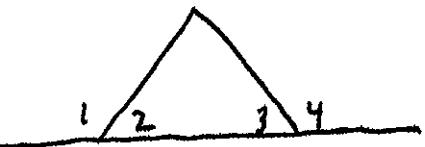
1. Given
2. defn. of congruent angles
3. Partian Postulate
4. Substitution
5. transitive.
6. 8th defn of congruent angles.

#2

- ① $\angle NQR \cong \angle MQP$
- ② $m\angle NQR = m\angle MQP$
- ③ $m\angle 1 + m\angle 2 = m\angle NQR$
- ④ $m\angle 3 + m\angle \cancel{2} = m\angle MQP$
- ⑤ $m\angle 1 + m\angle 2 = m\angle MQP$
- ⑥ $m\angle 2 = m\angle 2$
- ⑦ $m\angle 1 = m\angle MQP - m\angle 2$
- ⑧ $m\angle 3 = m\angle MQP - m\angle 2$
- ⑨ $m\angle 1 = m\angle 3$

- ① Given
- ② defn. of congruent angles.
- ③ & ④ Part. Postulate.
- ⑤ Substitution
- ⑥ reflexive
- ⑦ Add. prop. of $=$.
- ⑧ Substitution (transitive)

#3



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