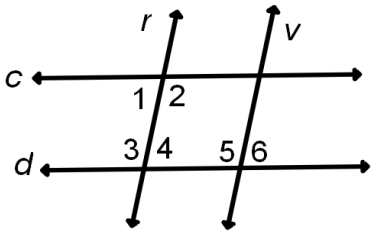
3-3 Proving Lines Parallel

Ex. 1

Given: $c \parallel d$, $\angle 1 \cong \angle 6$

Prove: $r \parallel v$



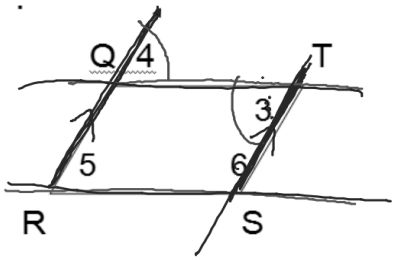
Statements	Reasons

Ex. 2

Given: $m\angle 6 + m\angle 4 = 180$, $\overline{QR} \parallel \overline{TS}$

Prove: $\overline{QT} \parallel \overline{RS}$

(show $m\angle 3 + m\angle 6 = 180$)



Statements	Reasons
(1) $m\angle 6 + m\angle 4 = 180$ $\overline{QR} \parallel \overline{TS}$	(1) Given
(2) $m\angle 4 = m\angle 3$	(2) if lines $\parallel$, alt. int. $\angle$s $=$
(3) $m\angle 6 + m\angle 3 = 180$	(3) Substitution
(4) $\overline{QT} \parallel \overline{RS}$	(4) If same-side int $\angle$s $= 180$, then lines $\parallel$.