1) p||q by the Converse of the corres ∠ post.

2) $m\angle 1 = 4(28)+16$ $m\angle 8 = 5(28)-12$ Subst. prop =

$m\angle 1 = 128$ $m\angle 8 = 128$ simplify

$\angle 1 \cong \angle 8$ def of $\cong$ $\angle$s

p||q converse of corres ∠ post.

3) $m\angle 4 = 6(11)-19$ $m\angle 5 = 3(11)+14$ substitution

$m\angle 4 = 47$ $m\angle 5 = 47$ simplify

$m\angle 4 \cong m\angle 5$ def of $\cong$ $\angle$s

p||q converse of corres ∠s Post

4) r||s Converse of alt ext. ∠ Thm

5) r||s Converse of SS. int. ∆s Thm

6) r||s Converse of alt int. ∠s Thm

7) $m\angle 4 = 13(5)-4$ $m\angle 8 = 9(5)+16$ Subst. prop =

$m\angle 4 = 61°$ $m\angle 8 = 61°$ simplify

$\angle 4 \cong \angle 8$ def of $\cong$ $\angle$s

r||s converse alt. int ∠s Thm

8) $m\angle 8 = 17(6)+37$ $m\angle 7 = 9(6)-13$ Subst. prop =

$m\angle 8 = 139°$ $m\angle 7 = 41°$ simplify

$139+41 = m\angle 8 + m\angle 7 = 180$ ∠s & add post

r||s converse of SS int ∠ Thm

9) $m\angle 2 = 25(5)+7$ $m\angle 6 = 24(5)+12$ Subst prop =

$m\angle 2 = 132$ $m\angle 6 = 132$ simplify

$\angle 2 \cong \angle 6$ def of $\cong$ $\angle$s

r||s Converse alt ext ∠s Thm