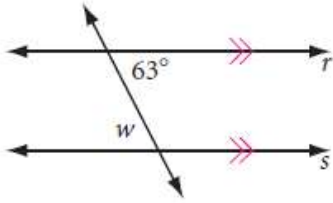
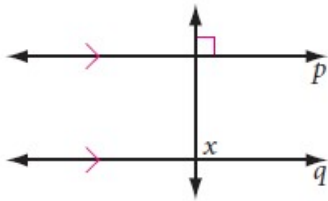


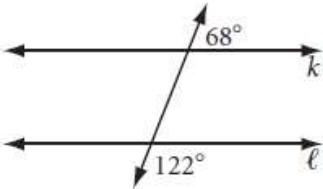
1) $w =$ _____



2) $x =$ _____

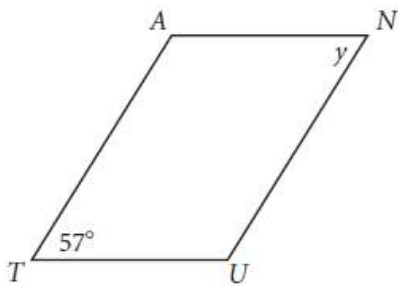


3) Is line k parallel to line l ?

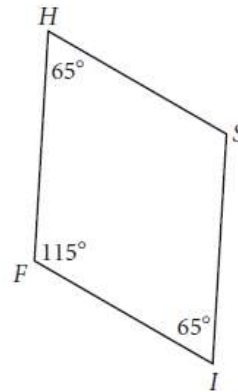


4) Quadrilateral $TUNA$ is a parallelogram.

$y =$ _____

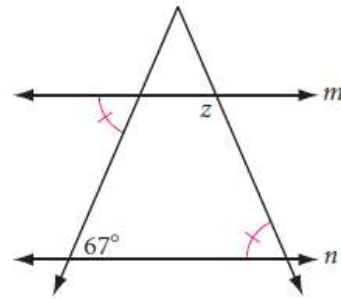


5) Is quadrilateral $FISH$ a parallelogram?

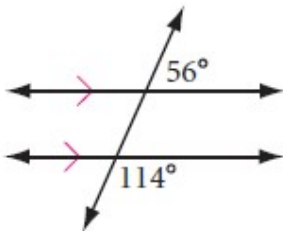


6) $m \parallel n$

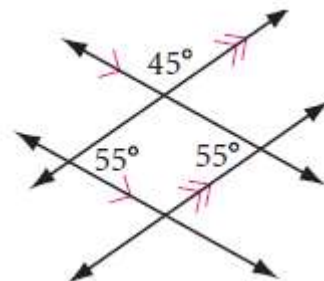
$z =$ _____



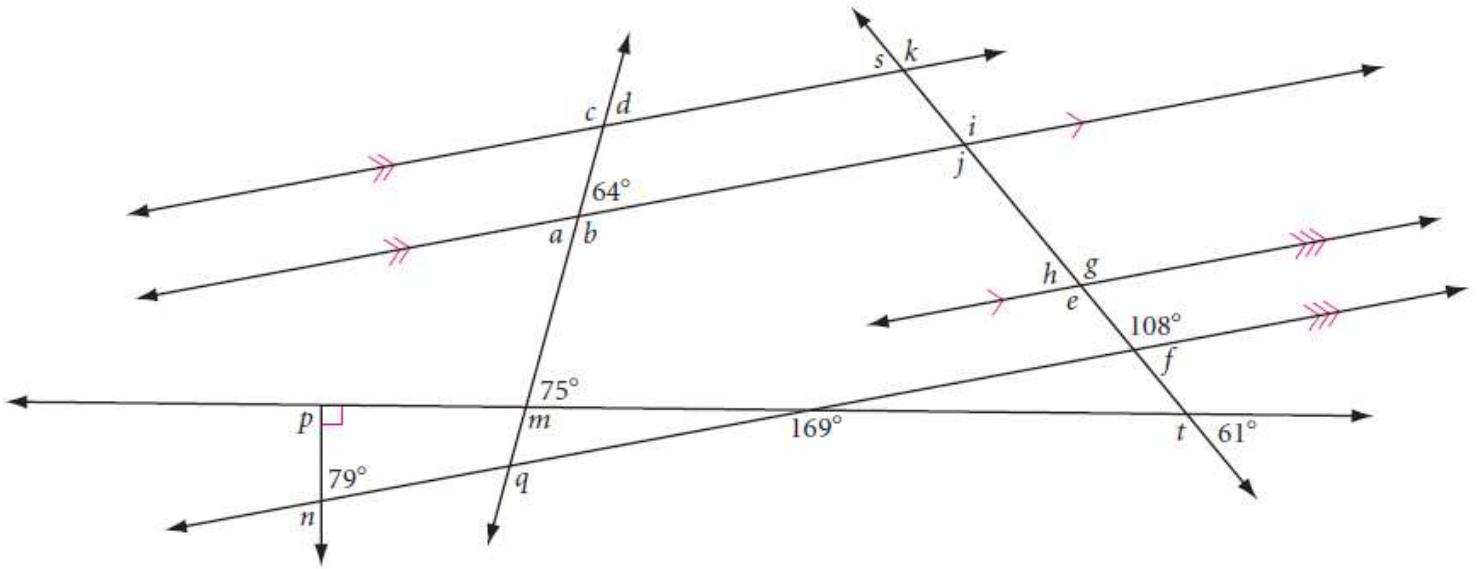
7) What's wrong with this picture?



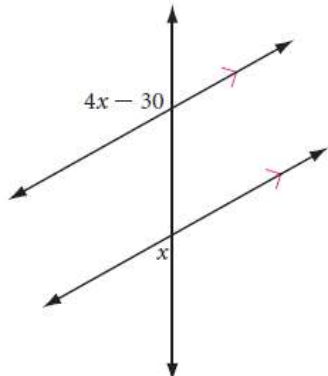
8) What's wrong with this picture?



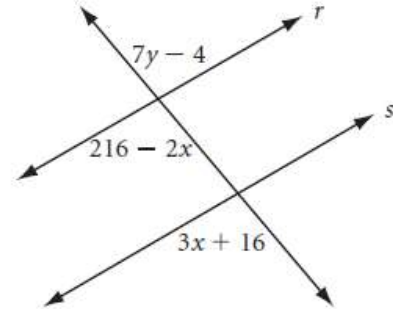
9) Calculate each lettered angle measure. Explain how you determine measures n, p , and q .



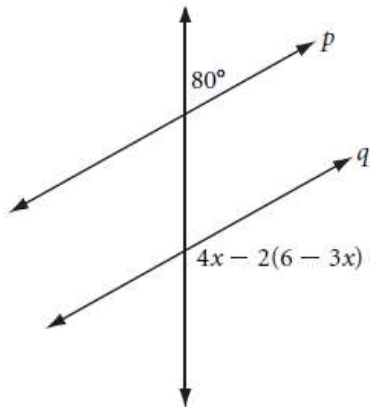
10) Find the value of x .



11) If $r \parallel s$, find the value of y .

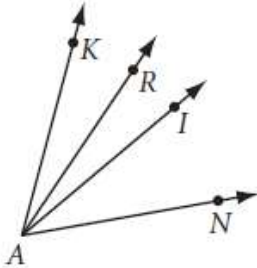


12) If $x = 12^\circ$, is $p \parallel q$?



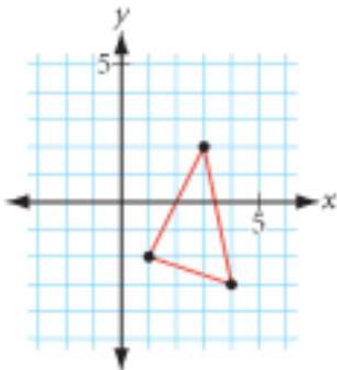
13) If D is the midpoint of \overline{AC} and C is the midpoint of \overline{BD} , what is the length of \overline{AB} if $BD = 12$ cm?

14) If \overrightarrow{AI} is the angle bisector of $\angle KAN$ and \overrightarrow{AR} is the angle bisector of $\angle KAI$, what is $m\angle RAN$ if $m\angle RAK = 13^\circ$?

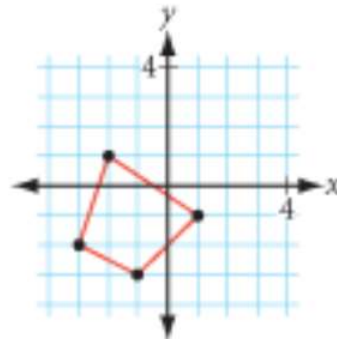


Draw each relocated polygon. Describe what happened to the figure. Is the new polygon congruent to the original?

15) Rule: Subtract 1 from each x -coordinate.



16) Rule: Reverse the sign of each x - and y -coordinate.



17) Rule: Switch the x - and y -coordinates.

Pentagon $LEMEN$ with vertices:

$L(-4, 2)$

$E(-4, -3)$

$M(0, -5)$

$O(3, 1)$

$N(-1, 4)$

