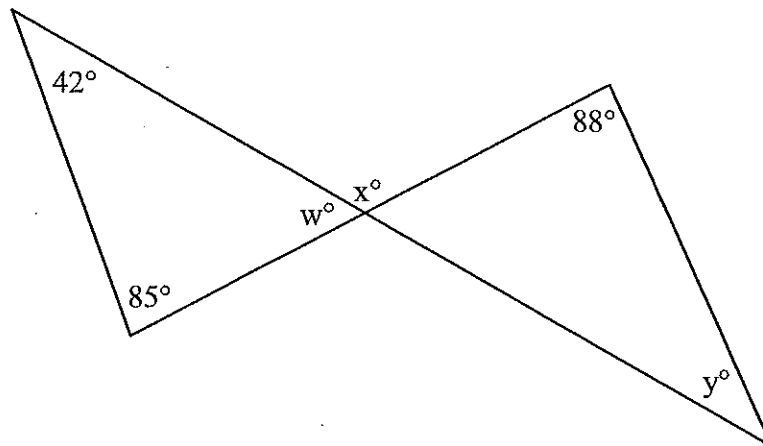
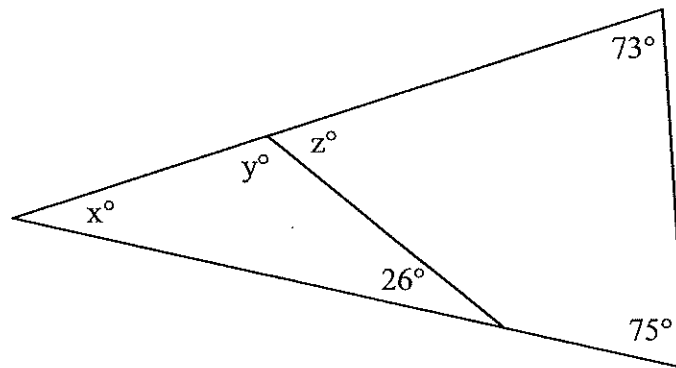


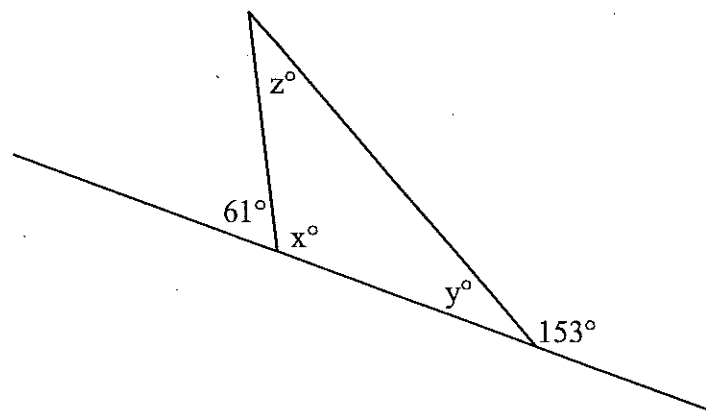
5. Determine the measures of the unknown angles in the figure.



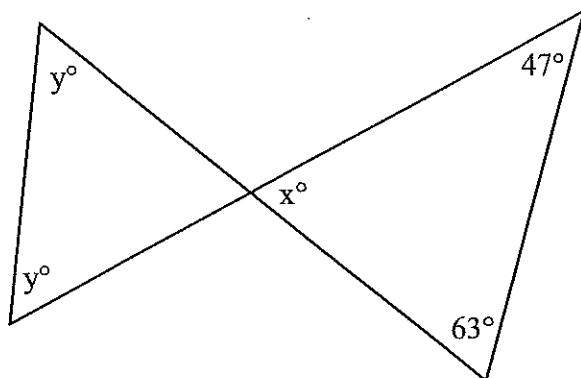
6. Determine the measures of the unknown angles in the figure.



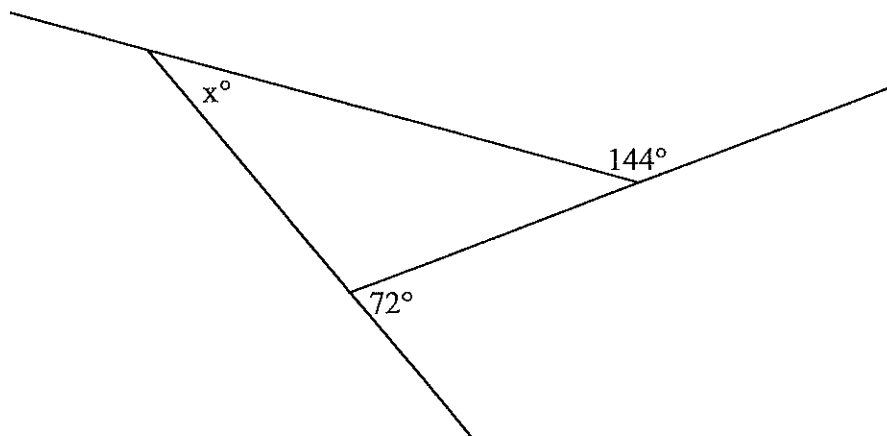
7. Determine the measures of the unknown angles in the figure.



8. Determine the measures of the unknown angles in the figure.



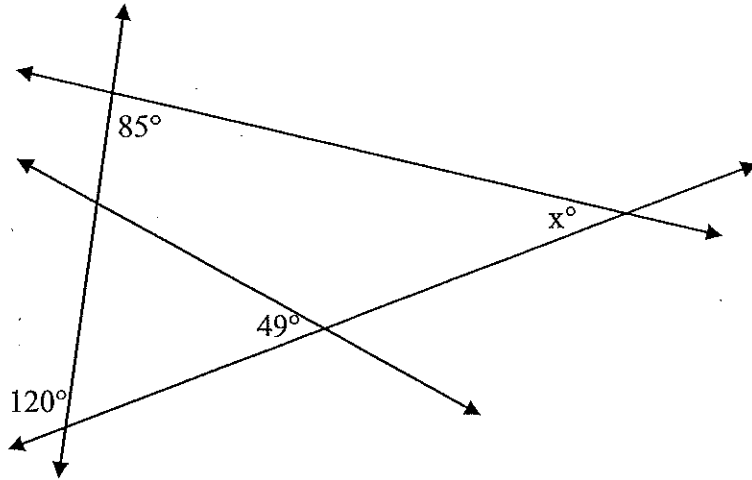
9. Error Analysis: Erik and David both got the same answer when they worked the following problem. However, their teacher graded their solutions very differently. Which student, if any, was correct?



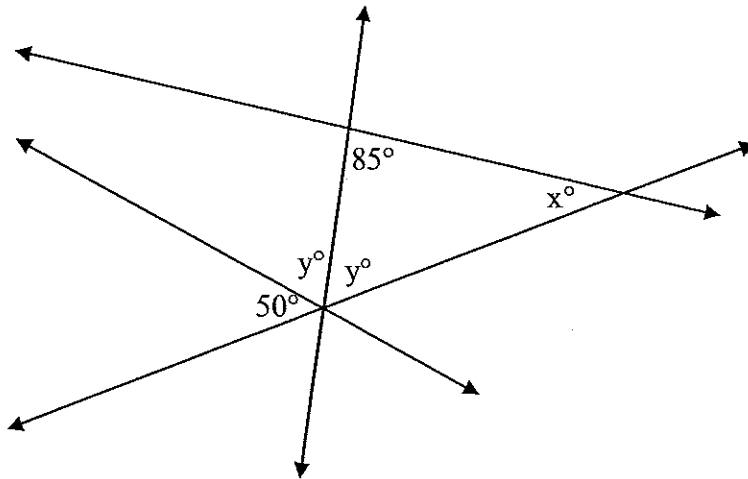
Erik's solution	David's solution
$x + 72 + 144 = 180$	$180 - 144 = 36; 180 - 72 = 108$
$x + 216 = 180$	$x + 36 + 108 = 180$
$216 - 180 = 36$	$x + 144 = 180$
$x = 36^\circ$	$-144 = -144$
	$x = 36^\circ$

Part 3: Challenge Problems

10. Determine the measure of the unknown angle.

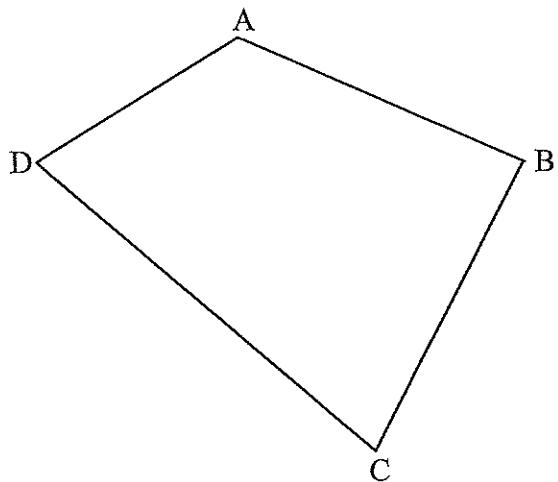


11. Determine the measures of the unknown angles.

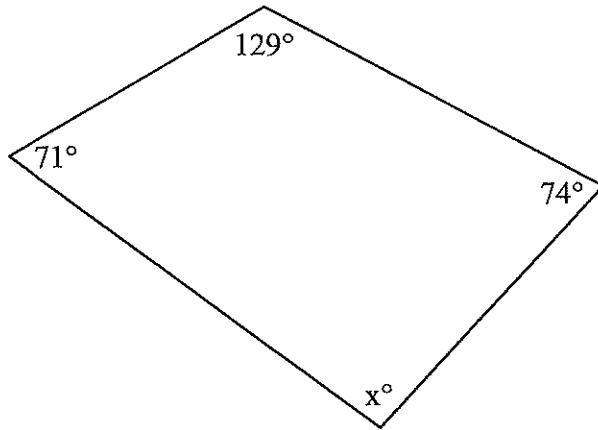


12. Consider the quadrilateral (4-sided polygon) at right.

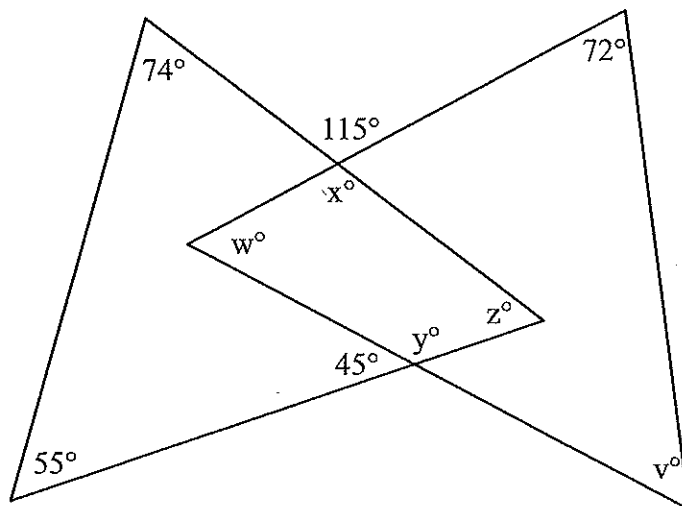
- a) On the figure, draw an auxiliary line from A to C.
- b) How many triangles are formed?
- c) How many degrees, total, are in the interior angles of each triangle?
- d) Make a conjecture: what is the sum of the interior angles in every quadrilateral?



13. Determine the value of the unknown.



14. Determine the value of the unknowns.



15. Determine the values of the unknown variables.

