

Name \_\_\_\_\_

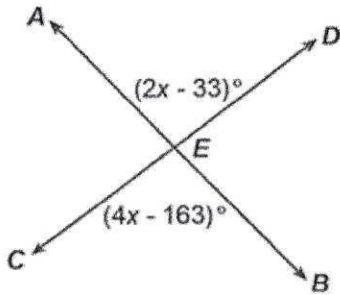
Date \_\_\_\_\_

Mrs. Roubos

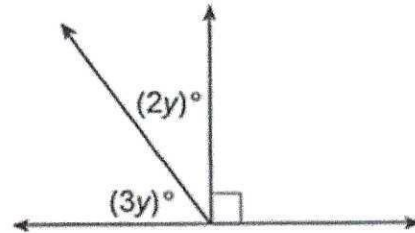
8R Period \_\_\_\_\_

### Complementary, Supplementary & Vertical Angles

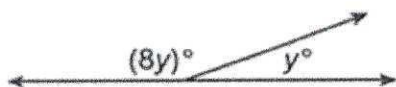
1) In the accompanying diagram, line  $\overleftrightarrow{AB}$  and line  $\overleftrightarrow{CD}$  intersect at point E. If  $m\angle AED = (2x - 33)^\circ$  and  $m\angle BEC = (4x - 163)^\circ$ , find the value of x.



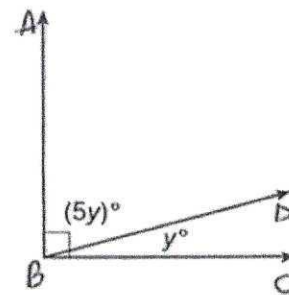
2) Solve for y in the diagram below.



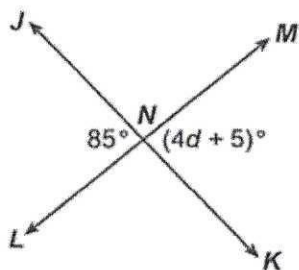
3) Solve for y in the diagram below.



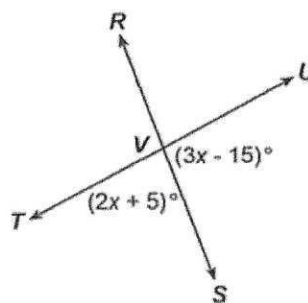
4) Solve for y in the diagram below. Then solve for the  $m\angle ABD$ .



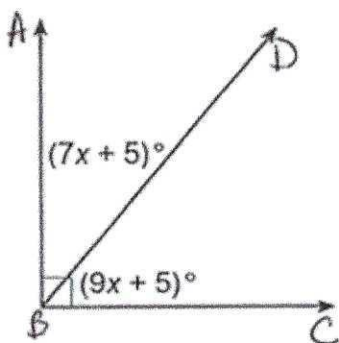
5) In the accompanying diagram, line  $\overline{JK}$  and line  $\overline{LM}$  intersect at point N. If  $m\angle MNK = (4d + 5)^\circ$  and  $m\angle JNL = 85^\circ$ , find the value of d.



6) In the accompanying diagram, line  $\overline{RS}$  and line  $\overline{TU}$  intersect at point V. If  $m\angle TVS = (2x + 5)^\circ$  and  $m\angle SVU = (3x - 15)^\circ$ , find the value of x.



7) Solve for x in the diagram below. Then solve for the  $m\angle DBC$ .



8) In the accompanying diagram, line  $\overline{LM}$  and line  $\overline{OP}$  intersect at point S. If  $m\angle LSP = (4x - 25)^\circ$  and  $m\angle PSM = (10x - 47)^\circ$ , find the  $m\angle LSP$ .

