

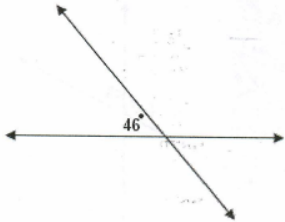
## Vertical Angles

(Vertical Angles are Opposite and Equal)

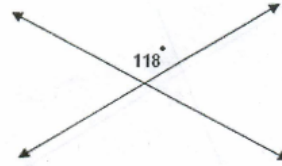
(Adjacent angles will form a linear pair and add to 180 degrees)

For each of the following examples fill in the value of all of the unknown angles. For some you will have to determine the value of the unknown variable before finding the angles.

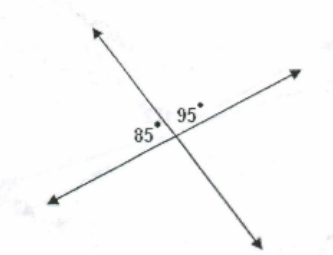
1.



5.



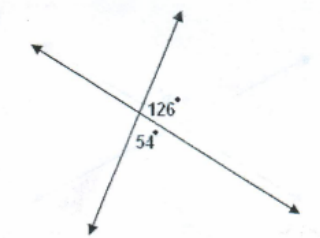
2.



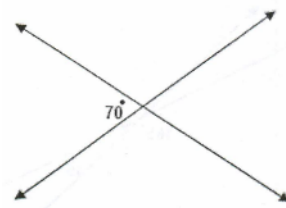
6.



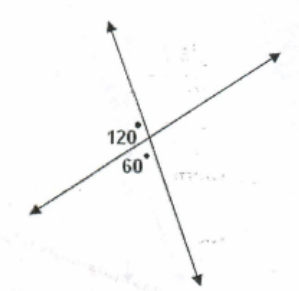
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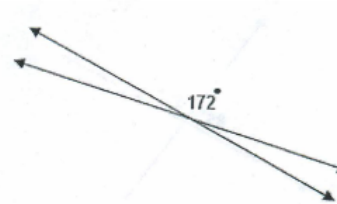
7.



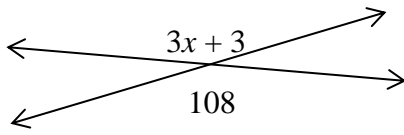
4.



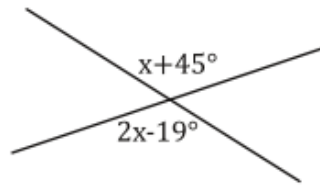
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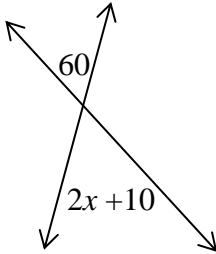
9.



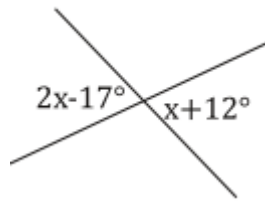
14.



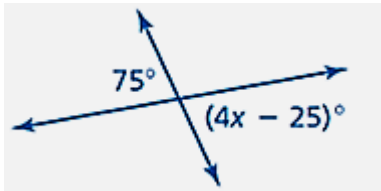
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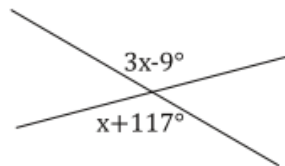
15.



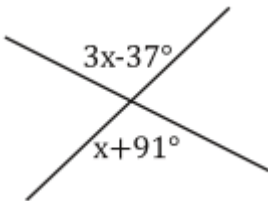
11.



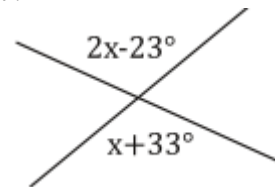
16.



12.



17.



18. Using the diagram, circle the pair of angles that are **vertical angles**.

a.  $\angle 1$  and  $\angle 2$

b.  $\angle 1$  and  $\angle 3$

c.  $\angle 3$  and  $\angle 8$

d.  $\angle 1$  and  $\angle 5$

