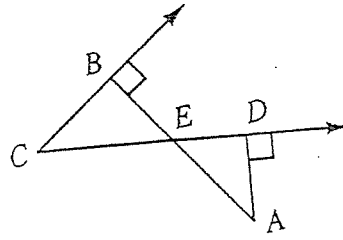
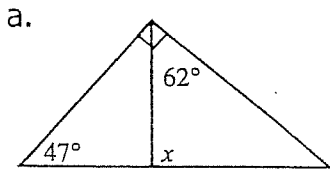


Geometry (H)  
Review 3.1 – 3.5

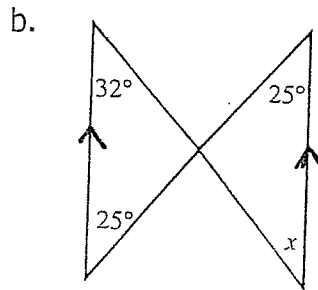
1. Given:  $\overline{AB} \perp \overline{BC}$ ,  $\overline{AD} \perp \overline{CD}$   
Prove:  $\angle A \cong \angle C$



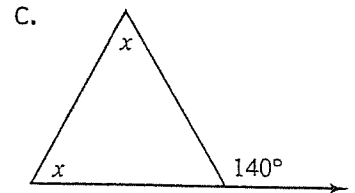
2. Find the value of  $x$ .



$x =$  \_\_\_\_\_

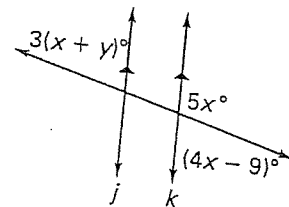


$x =$  \_\_\_\_\_

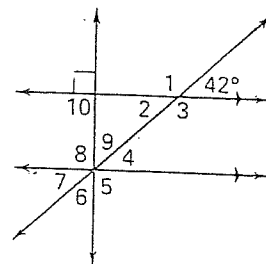


$x =$  \_\_\_\_\_

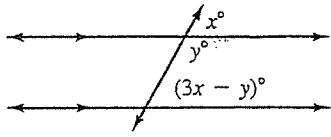
3. Lines  $j$  and  $k$  are parallel. Find the value of  $x$  and  $y$ .



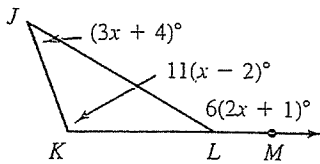
4. Find the measure of all labeled angles in the diagram.



5. Find the values of  $x$  and  $y$ .



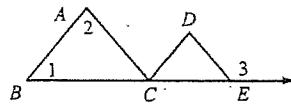
6. Find the measures of the interior angles of  $\triangle JKL$ .



7. Decide if the following statements are sometimes, always or never true. Justify your answer.

- Two lines parallel to the same plane are skew.
- Two lines perpendicular to the same line are parallel.
- Two lines perpendicular to the same plane intersect.

8. Given:  $\overline{AC} \parallel \overline{DE}$   
 Prove:  $m\angle 3 = m\angle 1 + m\angle 2$

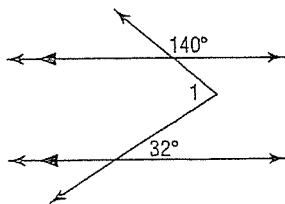


9. One of the acute angles of a right triangle has measure that is 5 less than four times the measure of the other. Find the measures of the angles.

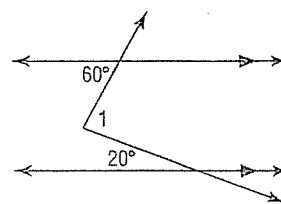
10. The measure of an exterior angle of a triangle is 3 less than twice the measure of the adjacent interior angle. If the measures of the remote interior angles differ by 1, find the measure of each angle.

11. Find the  $m\angle 1$  in each figure.

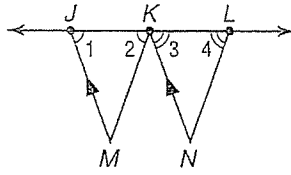
a.



b.



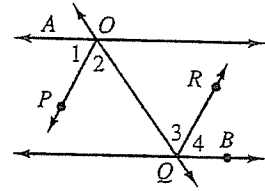
12. Given:  $\overline{JM} \parallel \overline{KN}$   
 $\angle 1 \cong \angle 2$   
 $\angle 3 \cong \angle 4$



Prove:  $\overline{KM} \parallel \overline{LN}$

13. Given:  $\overline{AO} \parallel \overline{BQ}$   
 $\overline{OP}$  and  $\overline{QR}$  bisect  $\angle AOQ$  and  $\angle OQB$ , respectively

Prove:  $\angle 2 \cong \angle 4$



14. Given:  $\overline{AO} \parallel \overline{BQ}$ ;  $\overline{OP} \parallel \overline{QR}$

Prove:  $\angle 1 \cong \angle 4$

