

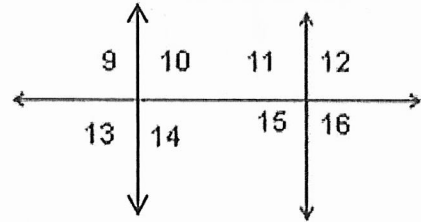
Worksheet #3 (Parallel Lines Cut by a Transversal)

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

Use the figure at the right to answer problems 1- 8.

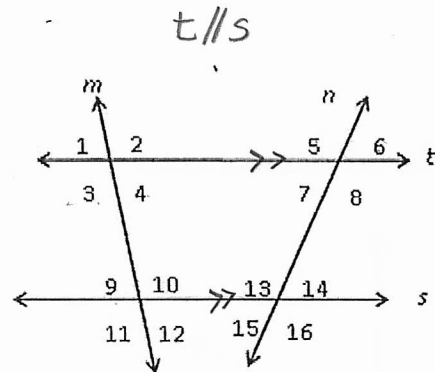
Classify each pair of angles as one of the following:

- (a) alternate interior angles      (b) corresponding angles  
 (c) alternate exterior angles      (d) vertical angles  
 (e) supplementary angles      (f) none



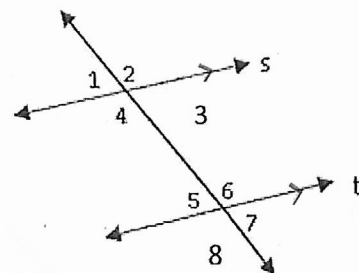
1. \_\_\_\_\_  $\angle 9$  &  $\angle 16$       5. \_\_\_\_\_  $\angle 9$  &  $\angle 11$   
 2. \_\_\_\_\_  $\angle 15$  &  $\angle 11$       6. \_\_\_\_\_  $\angle 9$  &  $\angle 15$   
 3. \_\_\_\_\_  $\angle 10$  &  $\angle 15$       7. \_\_\_\_\_  $\angle 13$  &  $\angle 14$   
 4. \_\_\_\_\_  $\angle 12$  &  $\angle 15$       8. \_\_\_\_\_  $\angle 14$  &  $\angle 11$

9.  $m\angle 2 = 97^\circ$        $m\angle 6 = 83^\circ$   
 $m\angle 3 =$  \_\_\_\_\_       $m\angle 5 =$  \_\_\_\_\_  
 $m\angle 10 =$  \_\_\_\_\_       $m\angle 7 =$  \_\_\_\_\_  
 $m\angle 9 =$  \_\_\_\_\_       $m\angle 16 =$  \_\_\_\_\_

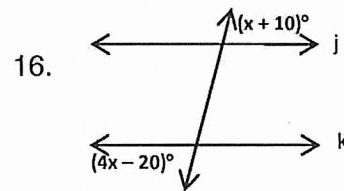
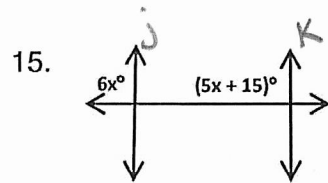
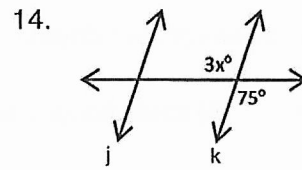
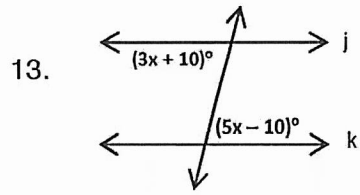


**Find the value of x given that s // t**

10.  $m\angle 4 = 77^\circ$ ,  $m\angle 8 = 4x + 57$   
 11.  $m\angle 3 = 5x + 13$ ,  $m\angle 5 = 53^\circ$   
 12.  $m\angle 1 = 6x - 5$ ,  $m\angle 7 = 115^\circ$



Find the value of  $x$  that makes  $j \parallel k$ .



Determine the missing angles.

