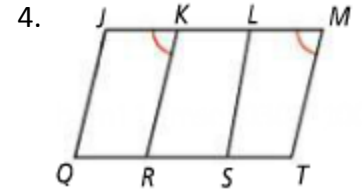
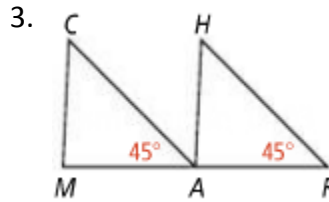
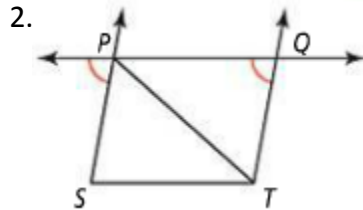
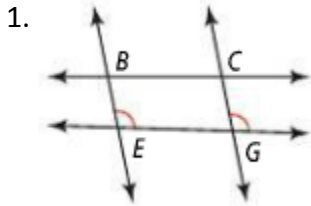


Name \_\_\_\_\_

Geometry

3-3 Worksheet

Which lines or segments are parallel? Justify your answer.



Use the given information to determine which lines, if any, are parallel. Justify each conclusion with a theorem or postulate.

5.  $\angle 2$  is supplementary to  $\angle 3$  \_\_\_\_\_

6.  $\angle 1 \cong \angle 3$  \_\_\_\_\_

7.  $\angle 6$  is supplementary to  $\angle 7$  \_\_\_\_\_

8.  $\angle 9 \cong \angle 12$  \_\_\_\_\_

9.  $m\angle 7 = 65, m\angle 8 = 115$  \_\_\_\_\_

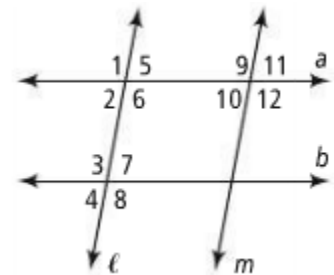
10.  $\angle 2 \cong \angle 10$  \_\_\_\_\_

11.  $\angle 1 \cong \angle 8$  \_\_\_\_\_

12.  $\angle 8 \cong \angle 6$  \_\_\_\_\_

13.  $\angle 11 \cong \angle 7$  \_\_\_\_\_

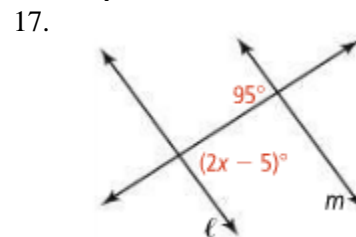
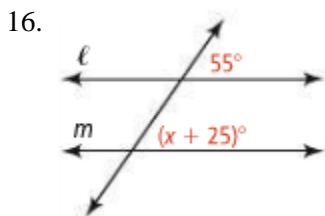
14.  $\angle 5 \cong \angle 10$  \_\_\_\_\_



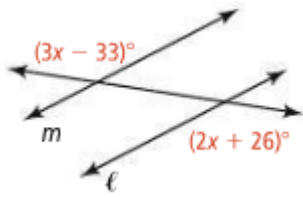
15. Two workers paint lines for angled parking spaces. One worker paints a line so that  $m\angle 1 = 65$ . The other worker paints a line so that  $m\angle 2 = 65$ . Are their lines parallel? Justify.



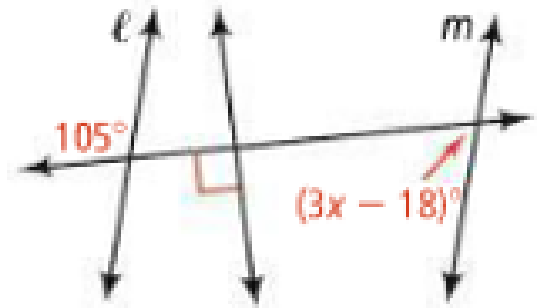
Find the value of  $x$  for which  $\ell \parallel m$  or the indicated lines will be parallel.



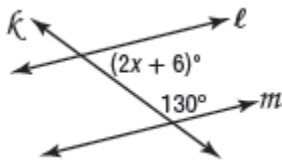
18.



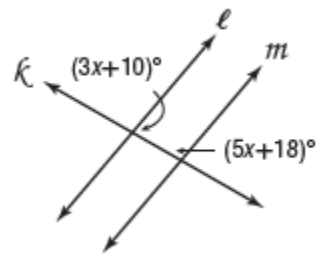
19.



20.



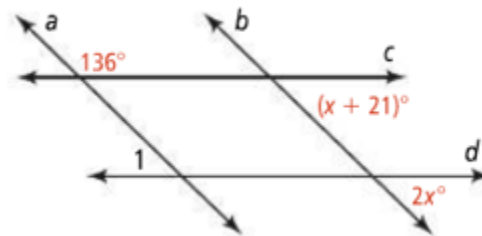
21.



Use the diagram for Exercises 22 and 23.

22. For what value of  $x$  is  $c \parallel d$ ?

- A 21                       C 43  
 B 23                       D 53



23. If  $c \parallel d$ , what is  $m\angle 1$ ?

- F 24                       H 136  
 G 44                       I 146