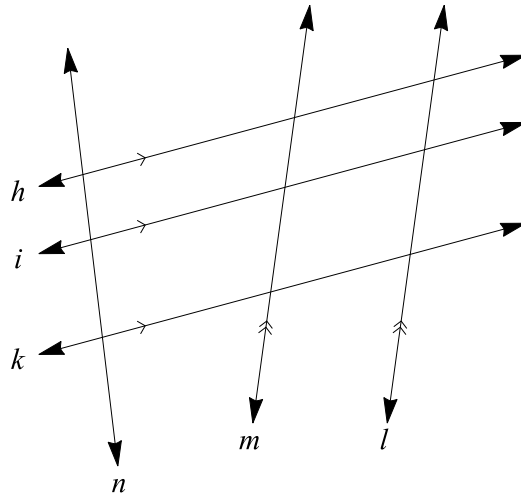


## Handout 1: Read Between the Lines Answers



1. What two characteristics do lines need to have in order to be parallel?  
In order to be parallel, lines need to be coplanar and never intersect.
2. Two lines that never intersect must be parallel. Is this true or false?  
False. Two lines that never intersect can be either parallel or skew.
3. Which of the lines in the figure are parallel to  $j$ ?  
Lines  $h$  and  $k$ .
4. Which of the lines in the figure are parallel to  $n$ ?  
None.
5. Which of the lines in the figure are not parallel to  $l$ ?  
Lines  $h$ ,  $j$ ,  $k$ , and  $n$ .
6. Line  $w$  has the equation  $y = \frac{1}{3}x + 1$ . If line  $v$  is parallel to line  $w$  and passes through  $(0,0)$ , what is the equation of line  $v$ ?  
 $y = \frac{1}{3}x$ .
7. Line  $p$  has the equation  $5x + 10y = 20$ . If line  $q$  is parallel to line  $p$  and passes through  $(10,0)$ , what is the equation of line  $q$ ?  
 $y = -\frac{1}{2}x + 5$ .

8. Line  $a$  has the equation  $7x + 2y = 14$  and line  $b$  has the equation  $7x - 2y = 16$ . Are the two lines parallel?

Nope. They have different slopes, so they're not parallel.

9. Line  $r$  has the equation  $2x + 3y = 17$  and line  $s$  has the equation  $-4x - 6y = 12$ . Are the two lines parallel?

Yes, lines  $r$  and  $s$  are parallel.

10. Line  $g$  has the equation  $27x - 9y = 18$  and line  $h$  has the equation  $9x - 3y = 6$ . Are the two lines parallel?

No, lines  $g$  and  $h$  are the same line.