

**Slopes of Parallel and Perpendicular Lines - Matching Worksheet**

Write the letter of the answer that matches the problem.

- \_\_\_\_\_ 1. Line c has a slope of  $\frac{-6}{7}$ . Line d has a slope of  $\frac{-6}{7}$ . Are line c and line d parallel or perpendicular? a. Perpendicular
- \_\_\_\_\_ 2. Line c has a slope of  $\frac{-3}{8}$ . Line d has a slope of  $\frac{-3}{8}$ . Are line c and line d parallel or perpendicular? b.  $y = \frac{5}{3}x + \frac{11}{3}$
- \_\_\_\_\_ 3. Line c has a slope of  $\frac{-9}{4}$ . Line d has a slope of  $\frac{4}{9}$ . Are line c and line d parallel or perpendicular? c.  $y = \frac{-7}{10}x + \frac{-15}{10}$
- \_\_\_\_\_ 4. The equation for line j can be written as  $y = \frac{8}{9}x - 8$ . Line k, which is parallel to line j, includes the point (6, 3). What is the equation of line k? d.  $y = \frac{-2}{8}x + \frac{42}{8}$
- \_\_\_\_\_ 5. The equation for line j can be written as  $y = \frac{5}{3}x - 9$ . Line k, which is parallel to line j, includes the point (2, 7). What is the equation of line k? e. Parallel
- \_\_\_\_\_ 6. The equation for line j can be written as  $y = \frac{8}{2}x - 10$ . Line k, which is perpendicular to line j, includes the point (-3, 6). What is the equation of line k? f.  $y = \frac{8}{9}x - \frac{7}{3}$
- \_\_\_\_\_ 7. The equation for line j can be written as  $y = \frac{10}{7}x - 11$ . Line k, which is perpendicular to line j, includes the point (-5, 2). What is the equation of line k? g. Parallel

