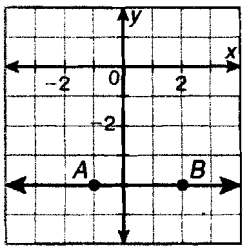
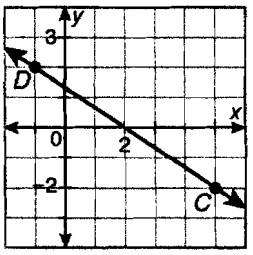
CC Geometry HW#_____ Name_____
Worksheet 3-5

Period____ Column_____ Date_____

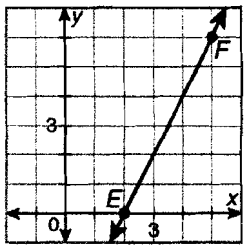
**Use the slope formula to determine the slope of each line. Show work.**

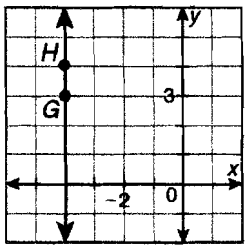



1. $\overleftrightarrow{AB}$ _____

2. $\overleftrightarrow{CD}$ _____

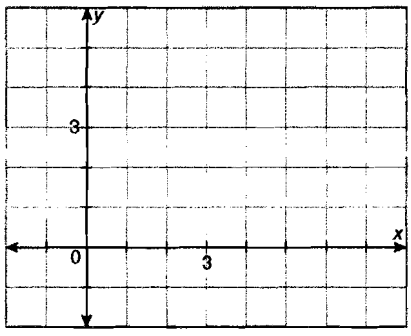


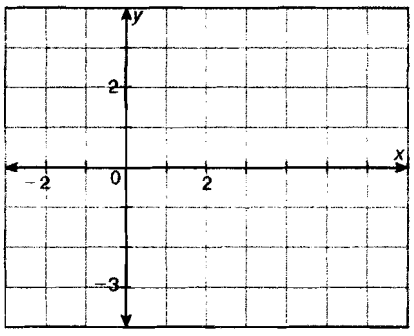




3. $\overleftrightarrow{EF}$ _____

4. $\overleftrightarrow{GH}$ _____

**Graph each pair of lines. Use slopes to determine whether the lines are parallel, perpendicular, or neither.**



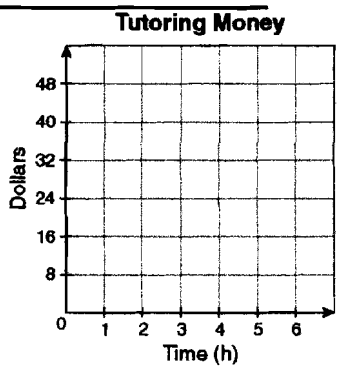




5. line $j$: $y = \frac{3}{5}x - 2$

line $k$: $y = \frac{-3}{5}x + 5$ _____

6. $\overleftrightarrow{PQ}$ and $\overleftrightarrow{RS}$ for $P(5, 1)$, $Q(-1, -1)$, $R(2, 1)$, and $S(3, -2)$ _____

7. Mike earns money tutoring math students on Saturdays. He starts at noon. By 2:00 P.M., he has earned $16. At 5:00 P.M., Mike has earned $40. Graph a line to show Mike's earnings and find the slope of the line to tell how many dollars Mike earns per hour.



**Use slopes to determine whether the lines are parallel, perpendicular, or neither. Show work for #9.**

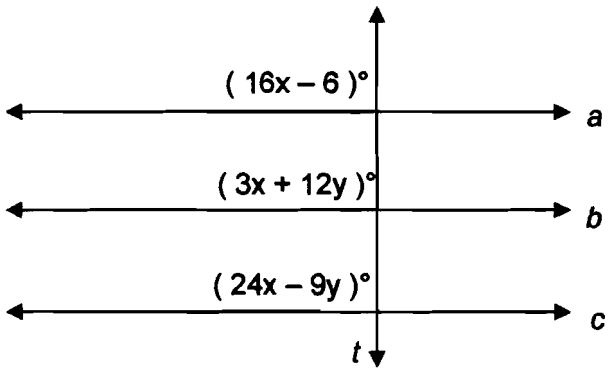
8. line $n$: $y = \frac{7}{5}x - 3$

   line $p$: $y = \frac{-5}{7}x - 3$

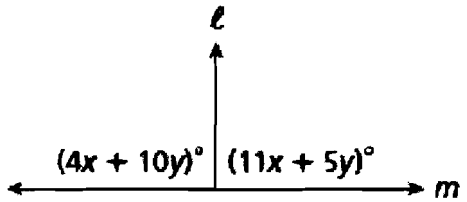
9. $\overleftrightarrow{VW}$: $V(-12, 4)$ and $W(2, 2)$

   $\overleftrightarrow{XY}$: $X(9, 0)$ and $Y(2, -1)$

9. Write and solve equations to find $x$ and $y$. Given: $a \parallel b \parallel c$ and $a \perp c$.




10. Write and solve equations to find $x$ and $y$. Given: $\ell \perp m$.




11. a) Name the shortest segment from $A$ to $\overleftrightarrow{BE}$.

    b) Write and solve and inequality to find the value of $x$.