


<p>CORNELL NOTES</p> 	<p>TOPIC/OBJECTIVE</p> <p>Finding lines that are parallel or perpendicular</p>	<p>NAME: Student B</p> <p>CLASS/PERIOD: Alg 1 (Per. 3)</p> <p>DATE: 1/28</p>
<p>ESSENTIAL QUESTION: What differences exist between the process for finding a parallel line & a perpendicular one?</p>		
<p>QUESTIONS:</p> <p>Apply the process for solving a parallel line onto finding the perpendicular line to $y = \frac{4}{3}x + 4$ that passes through $(8, -4)$?</p>	<p>Ex. 1 Find the line parallel (\parallel) to $y = 3x + 2$ that passes through $(4, 18)$.</p> <p>$y = mx + b$ $y = 3x + b$ $18 = 3(4) + b$ $18 = 12 + b$ $-12 \quad -12$</p> <p>① since line is \parallel use same slope. ② sub in (x, y) values from given pt. ③ simplify</p> <p>$6 = b$ ④ isolate b</p> <p>$y = 3x + 6$ ⑤ sub in m & b to find \parallel line</p> <p>The only difference in the perpendicular line is we need to change the sign of slope and flip upside down:</p> <p>Ex. 2 Find the perpendicular (\perp) to $y = \frac{4}{3}x + 4$ that passes thr. $(8, -4)$</p> <p>$y = mx + b$ $y = -\frac{3}{4}x + b$ ① since lines are \perp we use neg. recip. $-4 = -\frac{3}{4}(8) + b$ ② sub (x, y) values $-4 = -6 + b$ ③ Simplify $\quad +6 \quad +6$ ④ isolate b</p> <p>$2 = b$</p> <p>$y = -\frac{3}{4}x + 2$ ⑤ sub in m & b to find \perp line</p>	
<p>SUMMARY:</p>		