

Example:

For questions 1-5.

Find the equations for the line that passes through the point $(-1,4)$ and is parallel to the line $y=2x+3$. Verify your answer with a graph.

Solution:

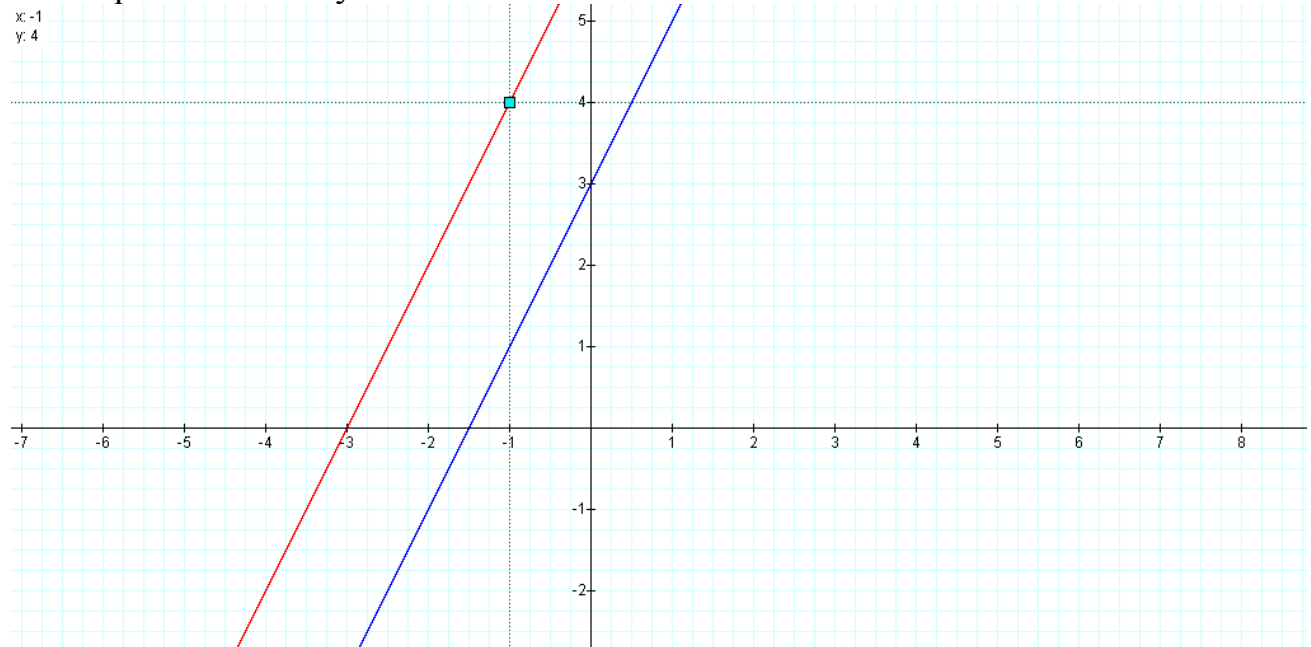
A line through point $(-1,4)$ and is parallel to the line $y=2x+3$ would have the same slope.

$Y=2x+b$ by subst. We get $4=2(-1) +b$

$$4=-2 +b$$

$$6=b$$

So the parallel line is $y = 2x + 6$.



For questions 6-10, decide whether the lines are parallel or perpendicular and verify with a graph.

1. through $(-1,4)$, parallel to $x+3y = 5$
2. through $(3,-2)$, parallel to $2x-y = 5$
3. through $(5,7)$, perpendicular to $y = -2$
4. through $(-4,-7)$, perpendicular to $x+y = 5$
5. through $(3,-2)$, parallel to $y = -1/5*x+6$

6. $y = 2x + 5$
 $1/2*x + y = 3$

7. $y=3x-2$
 $-3x+2y=-2$

8. $2x+y=2$
 $4x+2y=4$

9. $y=1/2*x+2$
 $y=2x-1$

10. $y=3x-1$
 $y-3x=4$