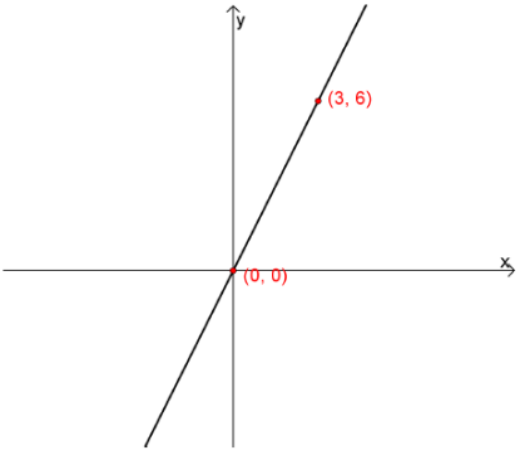
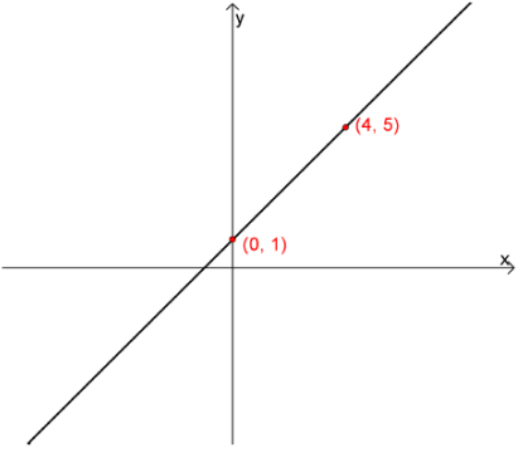
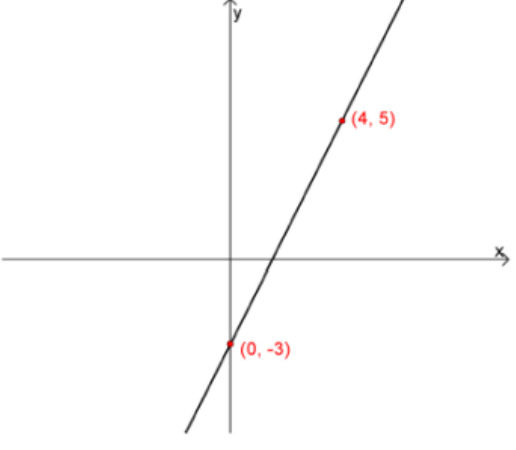


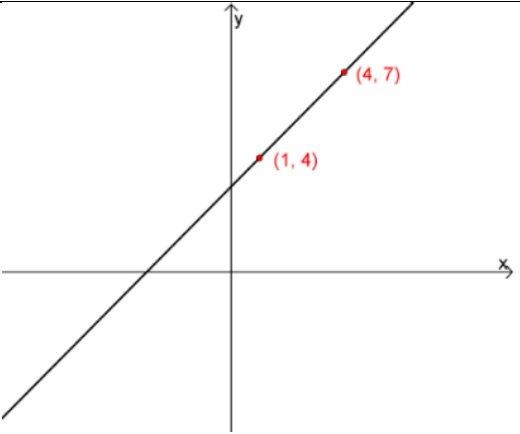
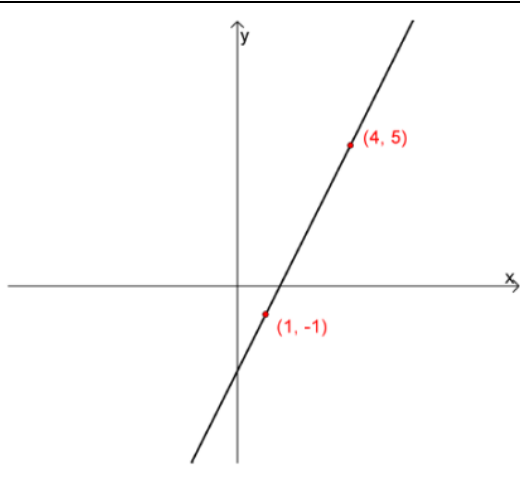
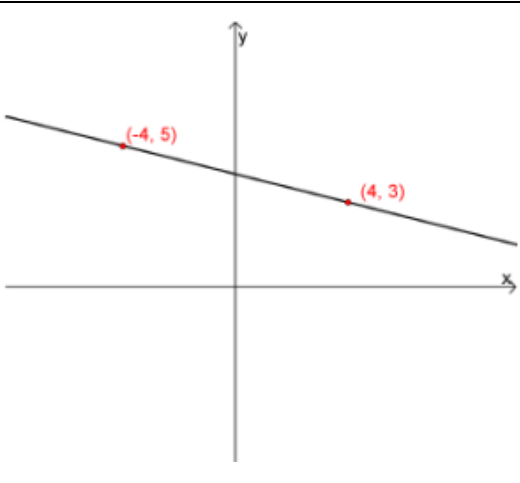
Equation of Straight Lines

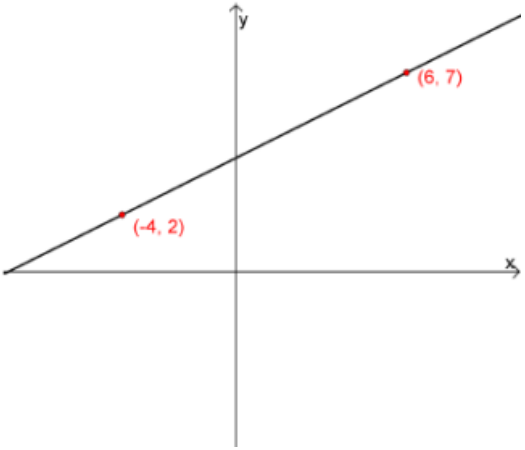
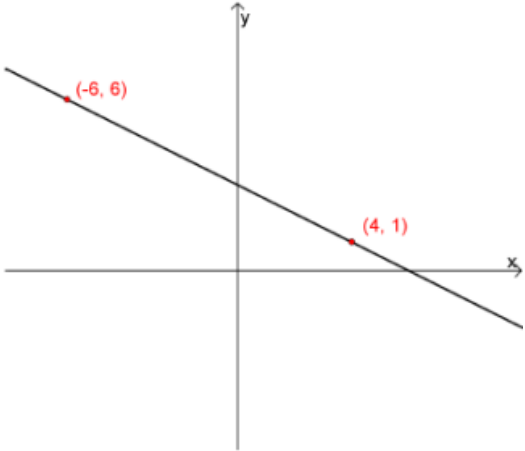
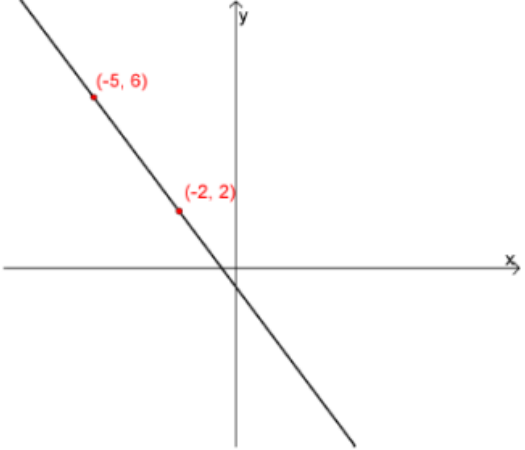
Name: _____ Class: S. 4 _____ () Date: _____

- A straight line that passes through origin can be represented by the equation _____, where m is the slope of the straight line.
- By translating the straight line $y = mx$ upward / downward, we can obtain a straight line which passes through $(0, c)$, i.e. **y-intercept** = c , and this equation can be represented by the equation _____. This is the "slope-intercept form" of the equation of straight line.

		Slope	y-intercept	Equation
1		$m = \frac{6-0}{3-0}$ $=$		
2				
3				

4	<p>A Cartesian coordinate system with x and y axes. A straight line is plotted, passing through the origin (0, 0) and the point (4, -3). Both points are marked with red dots and labeled in red text.</p>			
5	<p>A Cartesian coordinate system with x and y axes. A straight line is plotted, passing through the y-axis at (0, 5) and the point (6, 2). Both points are marked with red dots and labeled in red text.</p>			
6	<p>A Cartesian coordinate system with x and y axes. A straight line is plotted, passing through the y-axis at (0, -2) and the point (2, -5). Both points are marked with red dots and labeled in red text.</p>			

		Slope	Equation of straight line
eg		$m = \frac{7 - 4}{4 - 1}$ $= 1$	Let the equation be $y = (1)x + c$. Put $x = 4$ and $y = 7$, $7 = (1)(4) + c$ $c = 3$ \therefore equation is _____
7			
8			

9	 <p>A Cartesian coordinate system with x and y axes. A straight line is plotted with a positive slope. Two points are marked on the line with red dots and labeled: $(-4, 2)$ and $(6, 7)$.</p>		
10	 <p>A Cartesian coordinate system with x and y axes. A straight line is plotted with a negative slope. Two points are marked on the line with red dots and labeled: $(-6, 6)$ and $(4, 1)$.</p>		
11	 <p>A Cartesian coordinate system with x and y axes. A straight line is plotted with a negative slope. Two points are marked on the line with red dots and labeled: $(-5, 6)$ and $(-2, 2)$.</p>		