College Algebra / Writing Linear Equations

Writing Linear Equations

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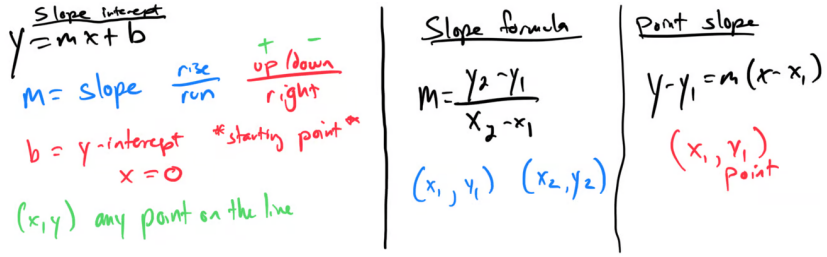
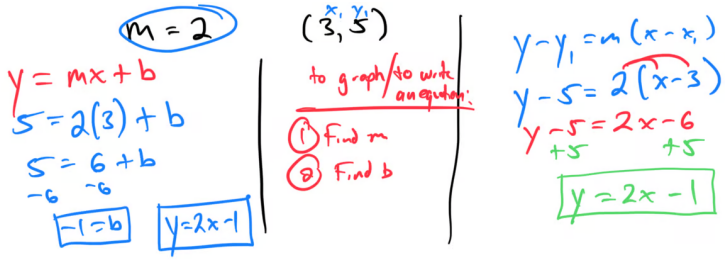
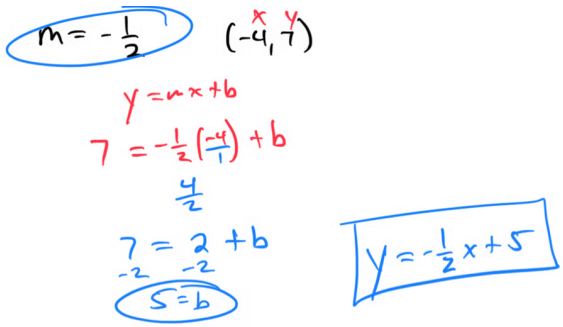


Topic 1: Writing an equation in slope-intercept form given the slope and a point

Problem 1: Write the equation of a line in slope-intercept form with a slope of 2 and passing through the point (3, 5).

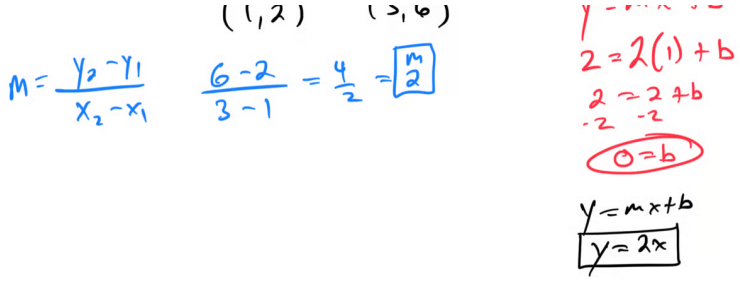


Problem 2: Find the equation of a line in slope-intercept form with a slope of -1/2 and passing through the point (-4, 7).

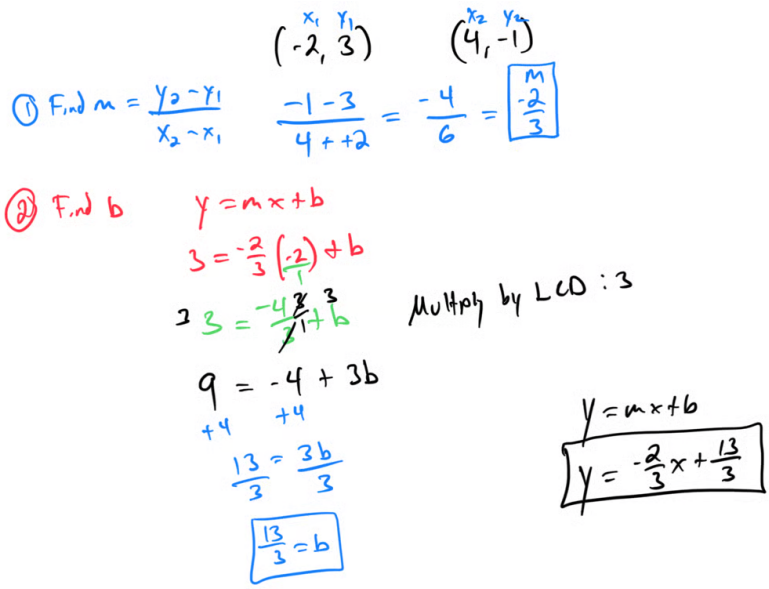


Topic 2: Writing the equation of a line through two given points

Problem 1: Write the equation of the line through the points (1, 2) and (3, 6) in slope-intercept form.

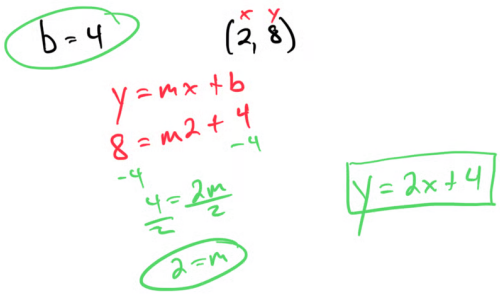


Problem 2: Find the equation of the line through the points (-2, 3) and (4, -1) in slope-intercept form.

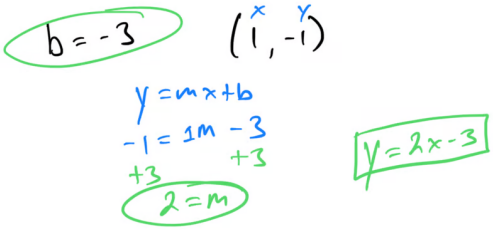


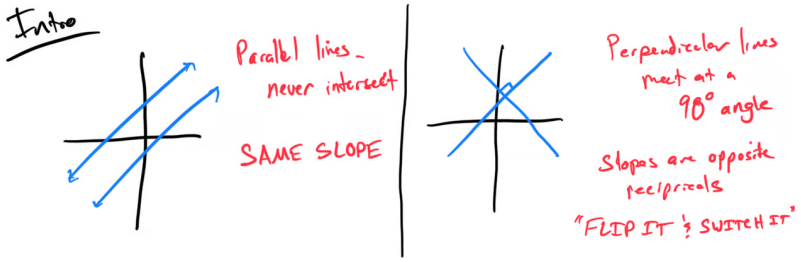
Topic 3: Writing the equation of a line given the y-intercept and another point

Problem 1: Write the equation of a line with y-intercept 4 and passing through the point (2, 8) in slope-intercept form.



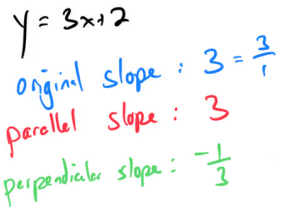
Problem 2: Find the equation of a line with y-intercept -3 and passing through the point (1, -1) in slope-intercept form.



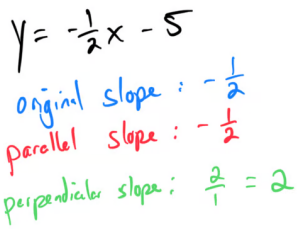


Topic 4: Finding slopes of lines parallel and perpendicular to a line given in slope-intercept form

Problem 1: Find the slopes of lines parallel and perpendicular to y = 3x + 2.

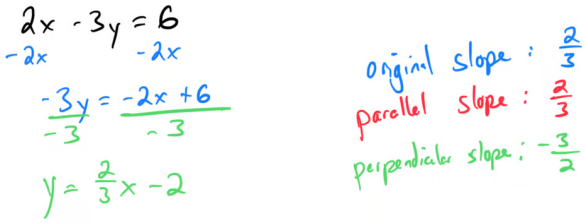


Problem 2: Determine the slopes of lines parallel and perpendicular to y = (-1/2)x - 5.

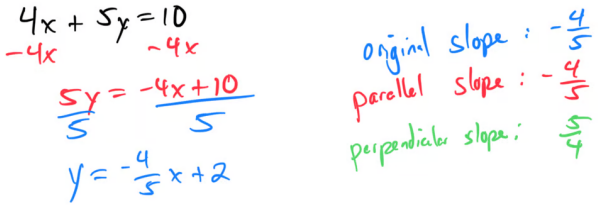


Topic 5: Finding slopes of lines parallel and perpendicular to a line given in the form Ax + By = C

Problem 1: Find the slopes of lines parallel and perpendicular to 2x - 3y = 6.



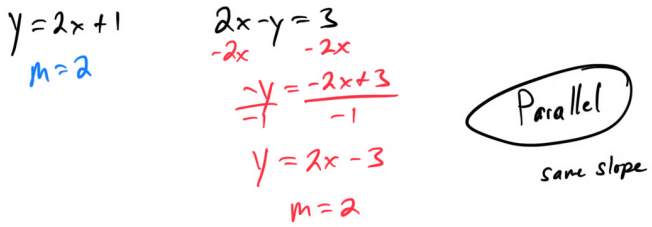
Problem 2: Determine the slopes of lines parallel and perpendicular to 4x + 5y = 10.



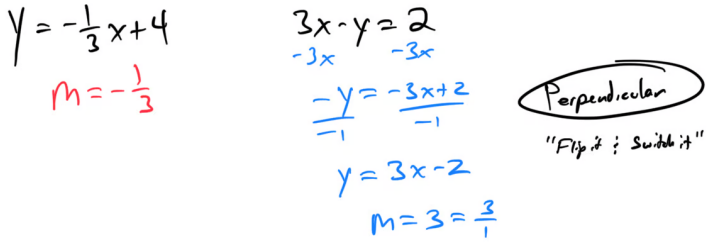
Topic 6: Identifying parallel and perpendicular lines from equations

Problem 1: Determine if the lines y = 2x + 1 and 2x - y = 3 are parallel, perpendicular,

or neither.

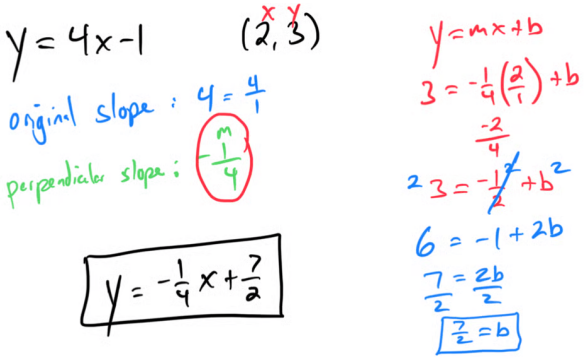


Problem 2: Are the lines y = (-1/3)x + 4 and 3x - y = 2 parallel, perpendicular, or neither?



Topic 7: Writing equations of lines parallel and perpendicular to a given line through a point

Problem 1: Write the equations of lines perpendicular to y = 4x - 1 passing through (2, 3) in slope-intercept form.



Problem 2: Find the equations of lines parallel to 3x + 2y = 6 passing through (-1, 5) in slope-intercept form.