





The point (0,0) is located at the origin of the coordinate plane.





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True. The origin is defined as the intersection point of the x-axis and y-axis, with coordinates (0,0).







The point (3, -2) lies in the fourth quadrant.





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True. The fourth quadrant has positive xcoordinates and negative y-coordinates.







The x-coordinate of a point on the y-axis is always 0.





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True. Points on the y-axis have the form (0, y), so their x-coordinate is always 0.







The equation y = 2x + 3 has a yintercept at (0, 3).





The equation y = 2x + 3 has a y-intercept at (0, 3).

True. The y-intercept occurs when x=0. Substituting x=0 gives y=3, so the intercept is (0,3).













The slope of the line 2y = 4x - 6 is 4.

False. Solving for y: y = 2x - 3. The slope is the coefficient of x, which is 2, not 4.







The line x = 5 is a horizontal line.





The line x = 5 is a horizontal line.

False. x = 5 represents a vertical line where all points have x-coordinate 5, not horizontal.













Two lines with the same slope are parallel.

True. Lines with identical slopes never intersect and are parallel.













The point (1,1) lies on the line y = 2x.

False. When x=1, y=2(1)=2 \neq 1. Thus, (1,1) is not on the line.













The x-intercept of the line 3x + 2y = 6 is (2,0).

True. Set $y=0: 3x = 6 \rightarrow x=2$. The x-intercept is (2,0).













The y-intercept of the line 4x - y = 8 is (0,8).

False. Set $x=0: -y = 8 \rightarrow y=-8$. The y-intercept is (0,-8), not (0,8).







The slope of a horizontal line is 0.





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True. Horizontal lines have no vertical change, so slope (rise/run) is 0.







The slope of a vertical line is 0.





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False. Vertical lines have undefined slope because their run is 0, causing division by zero.







In the equation Ax + By = C, if A=0, then the line is horizontal.





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True. When A=0, the equation becomes By = C, which simplifies to y = k (constant), a horizontal line.







The distance between the points (0,0) and (3,4) is 7 units.





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False. Distance = $\sqrt{[(3-0)^2 + (4-0)^2]} = \sqrt{(9+16)} = \sqrt{25} = 5$ units, not 7.







The point (-3, 4) is in the third quadrant.





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False. The third quadrant requires both coordinates negative. (-3,4) has negative x and positive y, placing it in the second quadrant.







The line y = -5x + 2 has a negative slope.





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True. The slope is -5, which is negative.







The lines y = 3x + 1 and y = 3x - 4 are perpendicular.





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False. Both have slope 3. Perpendicular lines have slopes that are negative reciprocals (e.g., 3 and -1/3).







The line y = 4 is a horizontal line.





The line y = 4 is a horizontal line.

True. y = 4 describes a horizontal line where all points have y-coordinate 4.







The point (0,5) lies on the x-axis.





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False. Points on the x-axis have y=0. (0,5) has x=0 and y=5, so it lies on the y-axis.







The equation y = 5 represents a line that passes through the origin.





The equation y = 5 represents a line that passes through the origin.

False. At the origin (0,0), $y=5 \neq 0$. The line y=5 is horizontal and does not pass through (0,0).