











In the equation y = 3x - 7, the gradient is 3 and the y-intercept is -7.

True. The equation is in slope-intercept form y =
mx + b, where m (coefficient of x) is the gradient
and b (constant term) is the y-intercept.







For the equation 2y = 8x + 6, the gradient is 8 and the y-intercept is 6.





For the equation 2y = 8x + 6, the gradient is 8 and the y-intercept is 6.

False. First rearrange to slope-intercept form: y = 4x + 3. The gradient is 4 and y-intercept is 3.













The line described by y = -5 has a gradient of 0 and a y-intercept of -5.

True. Horizontal lines (y = constant) have zero gradient. The constant term is the y-intercept.







In 4x - 2y = 10, the gradient is 4 and the y-intercept is 10.





In 4x - 2y = 10, the gradient is 4 and the y-intercept is 10.

False. Rearrange to slope-intercept form: $-2y = -4x + 10 \rightarrow y = 2x - 5$. Gradient is 2, y-intercept is -5.







The equation y = 1/2 x + 0 has a gradient of 1/2 and a y-intercept of 0.





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True. The constant term is explicitly 0, confirming the y-intercept is at the origin.







For the equation 3x + y = 9, the y-intercept occurs when x = 9.





For the equation 3x + y = 9, the y-intercept occurs when x = 9.

False. The y-intercept occurs when x = 0. Substituting x=0 gives y=9, so the y-intercept is 9.







A line with equation y = -3x + 2 has a negative gradient and crosses the y-axis at (0, 2).





A line with equation y = -3x + 2 has a negative gradient and crosses the y-axis at (0, 2).

True. The negative coefficient of x indicates a downward slope, and the constant term gives the y-intercept point.







In the equation x = 4, the gradient is undefined and the y-intercept is 4.





In the equation x = 4, the gradient is undefined and the y-intercept is 4.

False. Vertical lines have undefined gradient but no y-intercept because they never cross the y-axis.













The equation 5y = 15x - 10 has a gradient of 3 and a y-intercept of -2.

True. Divide all terms by 5: y = 3x - 2. Gradient is 3, y-intercept is -2.







If y - 4 = 2(x - 1), the gradient is 2 and the y-intercept is 4.





If y - 4 = 2(x - 1), the gradient is 2 and the y-intercept is 4.

False. Rewrite in slope-intercept form: $y = 2x - 2 + 4 \rightarrow y = 2x + 2$. Gradient is 2, but y-intercept is 2.







The line y = 7x passes through the origin and has a gradient of 7.





The line y = 7x passes through the origin and has a gradient of 7.

True. When x=0, y=0, so it passes through (0,0). The coefficient of x is the gradient.







In y = -x + 5, the gradient is -5 and the y-intercept is 1.





In y = -x + 5, the gradient is -5 and the y-intercept is 1.

False. The gradient is the coefficient of x (-1), and the constant term is 5, so y-intercept is 5.













For the equation 6x - 3y = 12, the gradient is 2 and the y-intercept is -4.

True. Rearrange: $-3y = -6x + 12 \rightarrow y = 2x - 4$. Gradient is 2, y-intercept is -4.













The equation y = 2 - 3x has the same gradient and y-intercept as y = -3x + 2.

True. Both are equivalent forms: gradient is -3 and y-intercept is 2.













A line with gradient -4 and y-intercept 3 has the equation y = 4x - 3.

False. The correct equation is y = -4x + 3. The sign of the gradient is reversed in the statement.







In y = 0.25x - 8, the gradient is 1/4 and the y-intercept is -8.





In y = 0.25x - 8, the gradient is 1/4 and the y-intercept is -8.

True. 0.25 is equivalent to 1/4. The constant term gives the y-intercept.







The equation 2x + 4y = 0 has a gradient of -0.5 and passes through the origin.





The equation 2x + 4y = 0 has a gradient of -0.5 and passes through the origin.

True. Rearrange: $4y = -2x \rightarrow y = -0.5x$. Gradient is -0.5, and when x=0, y=0.







For y = 5, the gradient is undefined and there is no yintercept.





For y = 5, the gradient is undefined and there is no y-intercept.

False. y=5 is a horizontal line with gradient 0 and y-intercept 5.







If a line crosses the y-axis at (0, -3) and has gradient 1/3, its equation is y = (1/3)x - 3.





If a line crosses the y-axis at (0, -3) and has gradient 1/3, its equation is y = (1/3)x - 3.

True. The y-intercept b = -3 and gradient m = 1/3, so y = mx + b is correctly applied.













The equation 3y + 9x = 6 has a gradient of -3 and a y-intercept of 2.

True. Rearrange: $3y = -9x + 6 \rightarrow y = -3x + 2$. Gradient is -3, y-intercept is 2.