Name _____ Date _____

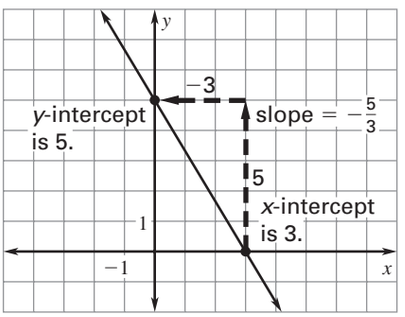
Objective 3
TEKS A.6.B Review

A.6.B Interpret the meaning of slope and intercepts in situations using data, symbolic representations, or graphs.

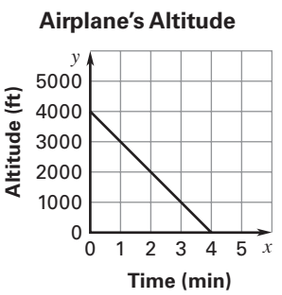
The **slope** of the line is the ratio of the vertical change to the horizontal change.

The ***x*-intercept** is the value of x when $y = 0$. The x-intercept shows where the graph of the line crosses the x-axis.

The ***y*-intercept** is the value of y when $x = 0$. The y-intercept shows where the graph of the line crosses the y-axis.



EXAMPLE The graph shows an airplane's altitude y after x minutes. What do the slope, y-intercept, and x-intercept of the graph represent?



The slope is −1000. This means the plane is descending at the rate of 1000 feet per minute.

The y-intercept is 4000. This means the plane is at an altitude of 4000 feet when it begins its descent.

The x-intercept is 4. This means the plane lands 4 minutes after its descent begins.

YOU DO IT This graph shows the remaining balance y of Mrs. Rivera's debt after x months. What do the slope, y-intercept, and x-intercept of the graph represent?

1. The slope is **−50**. This means **Mrs. Rivera pays off her debt at a rate of $50 per month.**

2. The y-intercept is **250**. This means **Mrs. Rivera had a $250 debt when she began paying it off.**

3. The x-intercept is **5**. This means **Mrs. Rivera's debt is paid off after 5 months.**