

LESSON 5-3

Practice and Problem Solving: A/B

- rise = 4, run = 5, slope = $\frac{4}{5}$
- rise = -6, run = 3, slope = -2
- rise = 3, run = 4, slope = $\frac{3}{4}$
- slope = $\frac{3}{2}$; hourly salary increases \$3 every 2 years, or \$1.50 per year.
- slope = $-\frac{400}{3}$; the number of people remaining decreases by 400 every 3 hours, or about 133 per hour.
- The slope would be 58 since \$58 is added to the total cost as the number of tickets bought increases by 1.

Practice and Problem Solving: C

- 4
- $-\frac{17}{7}$
- $\frac{11}{3}$
- 2
- 2
- $\frac{3}{5}$
- 9
- 0
- $\frac{1}{4}$
- $\frac{1}{11}$
- $\frac{2}{3}$
- According to the formula,
slope = $\frac{6-2}{3-3} = \frac{4}{0}$. But division by 0 is not possible. So, slope is undefined for a vertical line.

- A 7% grade means that a road rises 7%, or $\frac{7}{100}$. So, the slope of the road is $\frac{7}{100}$. For a driver, this means that the road rises (or falls) 7 feet for every 100 feet in horizontal distance.
- If the two intercepts had represented two different points, Ariel could graph the points and find the slope. Since that was impossible, the intercepts must have represented the same point. This can only happen if both intercepts are 0. The line passes through (0, 0).