

Writing the Equation of a Line Given the Slope and a Point

Overview of problems



Example Set: A

Write the equation of a line that passes through the point with the given slope(use the Slope-Intercept method)

$$m = 9 \quad (2, -4)$$

$$m = -\frac{1}{3} \quad (-7, 1)$$

$$m = \frac{1}{2} \quad (\frac{1}{3}, -5)$$



Example Set: B

Write the equation of a line that passes through the point with the given slope(use the Point-Slope method)

$$m = 9 \quad (2, -4)$$

$$m = -\frac{1}{3} \quad (-7, 1)$$

$$m = \frac{1}{2} \quad (\frac{1}{3}, -5)$$



Example Set: C

Write a *Linear Model* use your equation to answer the question

John has \$1400 in his college savings account after 3 years of saving. He is saving \$750 a year for college. Write an equation that models John's savings account. How much will John have in his account after 10 years of saving?

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Example Set: A

Write the equation of a line that passes through the point with the given slope(use the Slope-Intercept method)

$$m = 9 \quad (2, -4)$$

$$y = 9x - 22$$

$$m = -\frac{1}{3} \quad (-7, 1)$$

$$y = -\frac{1}{3}x - \frac{4}{3}$$

$$m = \frac{1}{2} \quad (\frac{1}{3}, -5)$$

$$y = \frac{1}{2}x - 5\frac{1}{6}$$



Example Set: B

Write the equation of a line that passes through the point with the given slope(use the Point-Slope method)

$$m = 9 \quad (2, -4)$$

$$y = 9x - 22$$

$$m = -\frac{1}{3} \quad (-7, 1)$$

$$y = -\frac{1}{3}x - \frac{4}{3}$$

$$m = \frac{1}{2} \quad (\frac{1}{3}, -5)$$

$$y = \frac{1}{2}x - 5\frac{1}{6}$$



Example Set: C

Write a *Linear Model* use your equation to answer the question

John has \$1400 in his college savings account after 3 years of saving. He is saving \$750 a year for college. Write an equation that models John's savings account. How much will John have in his account after 10 years of saving?

$$\text{Amt} = 750\text{years} - 850$$

$$\$6,650^{\text{ans}}$$