

Writing Linear Equations and World Problems**Write the slope-intercept form of the equation of the line through the given point with the given slope.**

1) through: $(4, -3)$, slope = $-\frac{3}{4}$

2) through: $(2, 3)$, slope = $\frac{5}{3}$

Write the slope-intercept form of the equation of the line through the given points.

3) through: $(0, 2)$ and $(-2, -2)$

4) through: $(-2, -1)$ and $(-2, 1)$

Use a linear equation to solve each of the following word problems.

5) Mr. Ring had 95 updates on facebook. Every day he gets 43 more. How many updates will Mr. Ring have after 23 days?

6) Jason has 514 pictures on his computer. Each month he deletes 21. How many pictures will remain on his computer after 14 months?

7) Jacky has 120 text messages on his phone. Every day he gets 15 more. How many text messages will Jacky have after 22 days?

8) Tiffany got a new job and was saving money. She had \$780 in her savings account in July, and \$845 in August. If she always deposited the same amount, how much money did Tiffany start with? How much money will be in her account after she has been saving for two years?

9) The US had approximately 210 million people in 1980, and had 307 million people in 2009. If the growth rate is linear, what will the US population approximately be in 2050? How about 1950?