

Practice: Graph Linear Relations by Hand

1. For each equation, identify the slope and the y -intercept, then graph the line.
 $y = 9x - 6$
 - a) $y = 3x - 4$
 - b) $y = -0.25x$
 - c) $y = -x - 5$
2. Use a graphing calculator with standard window settings. Check your graphs from question 1.
3. Graph each line.
 - a) $y = \frac{1}{2}x$
 - b) $y = -\frac{1}{4}x + 4$
 - c) $y = \frac{2}{5}x - 5$
 - d) $y = -\frac{1}{6}x + 1$
4. Use a graphing calculator with standard window settings. Check your graphs from question 3.
5. Solve for y , given the value of x .
 - a) $y = \frac{2}{5}x + 1$ $x = 10$
 - b) $y = -\frac{1}{3}x - 7$ $x = -6$
 - c) $y = \frac{3}{4}x - 6$ $x = 12$
 - d) $y = -\frac{1}{2}x$ $x = 8$
6. The video store charges a fee of \$4.75 for 1 day rentals. Each day after costs \$0.75 extra.
 - a) Create a graph of the linear relation that models the cost of each day for the first week.
 - b) Write an equation that models the costs for each day the DVD is rented.
 - c) How much does it cost to rent the DVD for 2 weeks?
 - d) How many days can the DVD be rented with \$13.75?
7. Ms. Underwood wants to send cookies to her nephew. The post office charges \$5.50 to package the item before delivery. Each box sent costs an extra \$1.25 added to the starting charge.
 - a) Create a graph of the linear relation that models the cost of the first 6 boxes of cookies.
 - b) Write an equation that models the shipping costs for each box of cookies.
 - c) How much does it cost to send 9 boxes of cookies?
 - d) If Ms. Underwood only has \$18, how many boxes of cookies can she send?