

Math 4CST

Word Problems on Linear Equations

Name: _____

(keywords: each or per)

- Define variables x and y .
- Determine the initial value and rate of change.
- Write an equation in the form $y = ax + b$ for each situation.

a) Shannon has already taken 2 pictures at home, and she expects to take 2 pictures during every day of vacation.

Let $x = \#$ of days of vacation

Initial value (b): _____

$y =$ Total number of pictures

Rate of Change (a): _____

Equation: _____

b) Keenan's birthday party costs \$4, plus an additional \$1 for each guest he invites.

Let $x =$ _____

Initial value (b): _____

$y =$ _____

Rate of Change (a): _____

Equation: _____

c) Before beginning voice lessons, Leslie already knew how to sing 1 piece, and she expects to learn 2 new pieces during each week of lessons.

Let $x =$ _____

Initial value (b): _____

$y =$ _____

Rate of Change (a): _____

Equation: _____

d) During each week of piano lessons, Pancho learns to play 2 new pieces.

Let $x =$ _____ Initial value (b): _____
 $y =$ _____ Rate of Change (a): _____

Equation: _____

e) A 50 000 gallon swimming pool is emptied at a rate of 220 gallons per hour.

Let $x =$ _____ Initial value (b): _____
 $y =$ _____ Rate of Change (a): _____

Equation: _____

f) The cost for an amusement park is \$50 for entry. This includes an unlimited number of rides.

Let $x =$ _Number of Rides_____ Initial value (b): _____
 $y =$ _ Total Cost (\$)_____ Rate of Change (a): _____

Equation: _____