

NAME _____

Date _____ Period _____

Section 4.7

ALGEBRA

Writing Equations from a Table: Practice A

1. The table below shows the cost (y) to play (x) games at the amusement park.

<u>Number of Games, X</u>	6	9	12	15
<u>Cost in Dollars, Y</u>	4	5	6	7

a) What is the rate of change ($\frac{\Delta y}{\Delta x}$)? What does the rate of change mean in this context?

b) What is the y -intercept (the time when $x = \underline{\hspace{1cm}}$)?

c) What is the equation of the line represented by this table?

$$y = \underline{\hspace{1cm}}x + \underline{\hspace{1cm}}$$

2. The table to the right shows the amount of money Betty has in her bank account. Which equation on the left matches the table on the right?

a) $y = 8x$

b) $y = \frac{1}{8}x$

c) $y = 8x + 55$

d) $y = \frac{1}{8}x + 55$

<u>Months (X)</u>	0	1	2	3	4
<u>Money in Bank (Y)</u>	25	33	41	49	57



3. The table below shows the amount of money Sam will earn (y) by shoveling (x) number of driveways.

<u>Number of Driveways, X</u>	3	5	7	9
<u>Earnings in Dollars, Y</u>	21	35	49	63

d) What is the rate of change ($\frac{\Delta y}{\Delta x}$)? What does the rate of change mean in this context?

e) What is the y -intercept (the time when $x = \underline{\hspace{1cm}}$)?

f) What is the equation of the line represented by this table?

$$y = \underline{\hspace{1cm}}x + \underline{\hspace{1cm}}$$

4. The table to the right shows the number of pies Jimmy earns for selling pies. Which equation on the left matches the table on the right?

e) $y = 5x$

f) $y = \frac{1}{5}x$

g) $y = \frac{1}{11}x + 5$

h) $y = 5x + 11$

<u>Pies Sold (X)</u>	0	1	2	3	4
<u>Earnings (Y)</u>	11	16	21	26	31

5. In the problem above, what is the rate of change? What does the rate of change represent in the context of this problem?



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Writing Equations from a Table: Practice A

1. The table below shows the cost (y) to play (x) games at the amusement park.

<u>Number of Games, X</u>	6	9	12	15
<u>Cost in Dollars, Y</u>	4	5	6	7

$\begin{matrix} \overset{+3}{\curvearrowright} & \overset{+3}{\curvearrowright} & \overset{+3}{\curvearrowright} \\ \downarrow & \downarrow & \downarrow \\ \underset{+1}{\curvearrowleft} & \underset{+1}{\curvearrowleft} & \underset{+1}{\curvearrowleft} \end{matrix}$

$$\frac{1}{3} = \frac{1}{3} = \frac{1}{3} = m$$

a) What is the rate of change ($\frac{\Delta y}{\Delta x}$)? What does the rate of change mean in this context?

How much each game cost

b) What is the y-intercept (the time when $x = 0$)?

$$y = \frac{1}{3}x + b$$

we (6,4)

$$4 = \frac{1}{3}(6) + b$$

$$4 = 2 + b$$

$$\begin{array}{r} -2 \\ -2 \\ \hline 2 = b \end{array}$$

c) What is the equation of the line represented by this table?

$$y = \frac{1}{3}x + 2$$

2. The table to the right shows the amount of money Betty has in her bank account. Which equation on the left matches the table on the right?

<u>Months (X)</u>	0	1	2	3	4
<u>Money in Bank (Y)</u>	25	33	41	49	57

$\begin{matrix} \overset{+1}{\curvearrowright} & \overset{+1}{\curvearrowright} & \overset{+1}{\curvearrowright} & \overset{+1}{\curvearrowright} \\ \downarrow & \downarrow & \downarrow & \downarrow \\ \underset{+8}{\curvearrowleft} & \underset{+8}{\curvearrowleft} & \underset{+8}{\curvearrowleft} & \underset{+8}{\curvearrowleft} \end{matrix}$

$$\frac{8}{1} = m$$

- None
- a) $y = 8x$
 - b) $y = \frac{1}{8}x$
 - c) $y = 8x + 55$
 - d) $y = \frac{1}{8}x + 55$

$$y = 8x + b$$

we (0,25)

$$25 = 8(0) + b$$

$$25 = b$$

$$y = 8x + 25$$



Key

3. The table below shows the amount of money Sam will earn (y) by shoveling (x) number of driveways.

<u>Number of Driveways, X</u>	3	5	7	9
<u>Earnings in Dollars, Y</u>	21	35	49	63

$\begin{matrix} \underbrace{+2} & \underbrace{+2} & \underbrace{+2} \\ \downarrow & \downarrow & \downarrow \\ +14 & +14 & +14 \end{matrix}$

$$\frac{14}{2} = 7 = m$$

d) What is the rate of change ($\frac{\Delta y}{\Delta x}$)? What does the rate of change mean in this context?

How much each drive way cost.

e) What is the y-intercept (the time when $x = 0$)?

$$y = 7x + b$$

use (3, 21)

$$21 = 7(3) + b$$

$$21 = 21 + b$$

$$\frac{-21 \quad -21}{0 = b}$$

f) What is the equation of the line represented by this table?

$$y = \underline{7}x + \underline{0} \quad y = 7x$$

4. The table to the right shows the number of pies Jimmy earns for selling pies. Which equation on the left matches the table on the right?

e) $y = 5x$

f) $y = \frac{1}{5}x$

g) $y = \frac{1}{11}x + 5$

h) $y = 5x + 11$

<u>Pies Sold (X)</u>	0	1	2	3	4
<u>Earnings (Y)</u>	11	16	21	26	31

$\begin{matrix} \underbrace{+1} & \underbrace{+1} & \underbrace{+1} & \underbrace{+1} \\ \downarrow & \downarrow & \downarrow & \downarrow \\ +5 & +5 & +5 & +5 \end{matrix}$

$$\frac{5}{1} = 5 = m$$

$$y = 5x + b$$

use (0, 11) $11 = 5(0) + b$

$$11 = b$$

$$y = 5x + 11$$

5. In the problem above, what is the rate of change? What does the rate of change represent in the context of this problem?

Rate of change is 11.
How much each pie cost.