Warm Up 2.2e: Linear Functions Name: _____

Roadrunners is having a buritto sale at lunch. They sold 8 to Mr. Chadwick before lunch and during lunch they sell them at a rate of 12 per minute.

1. Identify the independent and dependent quantities and their units for this situation then complete the table.

2. Write the function $b(t)$ to represent this problem.

$b(t) = 8 + 12t$

3. Use the table to predict when 135 burritos will be sold.

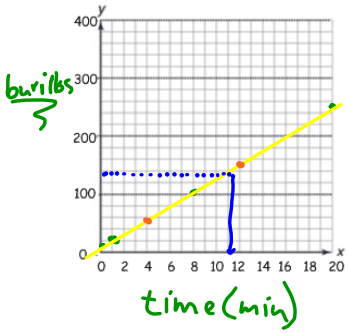
8-12

~10

	Independent Quantity	Dependent Quantity
Quantity	time	burrito Sales
Units	min.	burrito's
	0	8
	1	20
	2	32
	4	56
	8	104
	12	152
	20	248
	t	$8+12t$

135

4. Graph the function $f(t)$ on the coordinate plane. Label your axes.



5. Use your graph to estimate the number of minutes until 135 burritos are sold.

10-11, or 10.5

6. Does the graph represent a function? Why or why not?

yes, passes V. line test

7. Is your graph continuous or discrete? Explain your reasoning.

- continuous - sell few in less than a min.
- discrete - not selling partial burritos

8. Algebraically determine the number of minutes when 135 burritos are sold. Show your work.

$b(t) = 8 + 12t$

$135 = 8 + 12t$

$-8 \quad -8$

$\frac{127}{12} = \frac{12t}{12}$

$10.58\overline{3} = t$

10 min. 35 sec