

HWK #8 : Questions 3-7 [#'s 1 & 2 were done in class]

Student: _____ Class: _____ Date: _____

Understanding inverse relations

Student Activity Sheet 2; *Exploring* "The inverse of a linear function"

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1. Suppose your cell phone plan charges a fixed rate of \$10 per month plus 7 cents per minute. Create a table that shows the relationship between the total number of minutes you might use each month, m , and your total monthly cell phone bill, t .

2. Write a function rule that models the situation in question 1.

3. Use the function rule from question 2 to determine what your bill would be if you talked 100 minutes.

4. Using the same function rule, how many minutes did you talk if your bill totaled \$31?

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5. **REINFORCE** The CBA Credit Union offers a cash-back checking account that rewards a member with a \$0.05 deposit to a linked savings account every time the member uses the CBA debit card to make a purchase. New members also receive a \$5 cash-back reward bonus when they set up these accounts.

Suppose you become a member of this credit union and sign up for the cash-back checking account. Write a function that shows the relationship between the total number of debit card purchases you have made, p , and the total amount of cash-back rewards you have received, c .

6. **REINFORCE** Use the function rule from the previous question to determine your total cash-back rewards after making 25 debit card purchases.

7. **REINFORCE** Using the same function rule, how many debit card purchases would you have to make to earn a total of \$30 in cash-back rewards?