

NAME: _____

UNIT 3 • LINEAR AND EXPONENTIAL FUNCTIONS

Lesson 7: Operating on Functions and Transformations

Problem-Based Task 3.7.1: Jai's Jeans

Jai is shopping for jeans and finds a style she likes so much that she may buy more than one pair. The jeans cost \$50 each and are on sale for 30% off. Write an expression for the sale price of the jeans in such a way that the original purchase price is still evident. Then, write a function rule for the expression and simplify it. Use this function to find out how much money it will cost if Jai buys 4 pairs of jeans.

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Coaching

- a. What is the original price of the jeans?

- b. What is an expression to represent buying x pairs of jeans at the original price?

- c. How would you calculate the 30% discount?

- d. Write an expression to represent the sale price for x pairs of jeans.

- e. Write the expression as a rule in function notation.

- f. Simplify the function.

- g. Substitute 4 for x and evaluate.