

Determine the function rule for the following table of values.

1.

Cans of Orange Juice	Total Cost
1	\$1.25
2	\$2.50
3	\$3.75
4	\$5.00

2.

Hours a Plumber Works	Cost to Home Owner
1	\$65
2	\$90
3	\$115
4	\$140

3.

Time (hours)	Cost of Bike Rental
1	\$10
2	\$16
3	\$22
4	\$28

**Base your answers below on the following situation.**

4. The weight ( $w$ ) of a backpack depends on the number of books ( $b$ ) in the backpack. Susan's bookbag weighs 2 pounds and each book weighs 2.5 pounds. She can pack at most 5 books.

a) Create a table of values to display a reasonable domain and range for this situation.

Books ( $b$ )						
Weight ( $w$ )						

b) Determine a function rule to represent the following situation.

c) Does this data represent continuous or discrete data? Justify your response.

d) If Susan crammed 7 books in her bookbag, how much weight would she be carrying?

Determine the function rule for the following table of values.

1.

Cans of Orange Juice	Total Cost
1	\$1.25
2	\$2.50
3	\$3.75
4	\$5.00

$j$     $C$

$$C = j \cdot 1.25$$

2.

Hours a Plumber Works	Cost to Home Owner
1	\$65
2	\$90
3	\$115
4	\$140

$h$     $C$

$$C = 40 + 25h$$

3.

Time (hours)	Cost of Bike Rental
1	\$10
2	\$16
3	\$22
4	\$28

$h$     $C$

$$C = 4 + 6h$$

Base your answers below on the following situation.

4. The weight ( $w$ ) of a backpack depends on the number of books ( $b$ ) in the backpack. Susan's bookbag weighs 2 pounds and each book weighs 2.5 pounds. She can pack at most 5 books.

a) Create a table of values to display a reasonable domain and range for this situation.

Books ( $b$ )	0	1	2	3	4	5
Weight ( $w$ )	2	4.5	7	9.5	12	14.5

b) Determine a function rule to represent the following situation.

$$W = 2 + 2.5b$$

c) Does this data represent continuous or discrete data? Justify your response.

Discrete because the input, books, cannot be described using decimals.

ie There isn't a half a book

d) If Susan crammed 7 books in her bookbag, how much weight would she be carrying?

$$W = 2 + 2.5 \cdot 7$$

$$W = 19.5 \text{ pounds}$$