

## Possible Solutions

Trey sells 50-pound bags of wood chunks to be used for smoking meat in grills. One day he sold two bags for \$30, five bags for \$75, seven bags for \$105, and four bags for \$60. Represent the situation using an input-output table and a numerical expression that could be used to find the cost for  $b$ , the number of bags sold.

Use the expression to find the cost of 12 bags of wood, and justify your answer by showing the sequence representing the relationship between the input and the output.

### Solution 1

<b>Number of Bags (Input)</b>	2	5	7	4	$b$
<b>Process</b>	$15 \times 2$	$15 \times 5$	$15 \times 7$	$15 \times 4$	$15 \times b$
<b>Cost (Output)</b>	\$30	\$75	\$105	\$60	$15 \times b$

The cost of  $b$ , the number of bags of wood, can be expressed by the expression  $15 \times b$ .

### Solution 2

<b>Number of Bags (Input)</b>	<b>Process</b>	<b>Cost (Output)</b>
2	$15 \times 2$	\$30
5	$15 \times 5$	\$75
7	$15 \times 7$	\$105
4	$15 \times 4$	\$60
$b$	$15 \times b$	$15 \times b$

The cost of  $b$ , the number of bags of wood, can be expressed by the expression  $15 \times b$ .

$$\begin{aligned} &15 \times b \\ &15 \times 12 \\ &180 \end{aligned}$$

For 12 bags of wood, it will cost \$180.

{15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, 180, ...}