

Content Standard	MAFS.8.F Functions MAFS.8.F.2 Use functions to model relationships between quantities. MAFS.8.F.2.4 Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.											
Assessment Limits	Function notation may not be used. Functions must be linear. Rate of change must be simple fractions up to tenths.											
Calculator	Neutral											
Item Types	Equation Editor GRID Matching Item Multiple Choice Multiselect Open Response Table Item											
Context	Allowable											
Sample Item		Item Type										
The cost, C , to rent a car for d days is shown in the table. <table border="1"><thead><tr><th>Days (d)</th><th>Cost (C)</th></tr></thead><tbody><tr><td>2</td><td>\$105</td></tr><tr><td>4</td><td>\$195</td></tr><tr><td>5</td><td>\$240</td></tr><tr><td>6</td><td>\$285</td></tr></tbody></table> Write an equation that represents this function.		Days (d)	Cost (C)	2	\$105	4	\$195	5	\$240	6	\$285	Equation Editor
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<p>A rental car company has a linear pricing plan. The total cost, C, to rent a car for 2, 4, 6, and 10 days, d, is shown.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Days (d)</th> <th style="padding: 5px;">Total Cost (C)</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">2</td><td style="text-align: center;">\$105</td></tr> <tr><td style="text-align: center;">4</td><td style="text-align: center;">\$195</td></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">\$285</td></tr> <tr><td style="text-align: center;">10</td><td style="text-align: center;">\$465</td></tr> </tbody> </table> <p>A. What is the daily rate for the pricing plan?</p> <p>B. Write an equation that represents the pricing plan.</p> <div style="margin-top: 10px;"> <p>A. <input style="width: 200px; height: 25px;" type="text"/></p> <p>B. <input style="width: 200px; height: 25px;" type="text"/></p> </div> <div style="margin-top: 10px;"> <div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9;"> <div style="border-bottom: 1px solid #ccc; padding-bottom: 5px; margin-bottom: 5px;"> ← → ↶ ↷ ✖ </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>1</td><td>2</td><td>3</td><td>d</td><td>C</td> </tr> <tr> <td>4</td><td>5</td><td>6</td><td>+</td><td>-</td> </tr> <tr> <td>7</td><td>8</td><td>9</td><td>•</td><td>÷</td> </tr> <tr> <td>0</td><td>.</td><td>-</td><td><</td><td>≤</td> </tr> <tr> <td></td><td></td><td></td><td>=</td><td>≥</td> </tr> <tr> <td></td><td></td><td></td><td>></td><td></td> </tr> <tr> <td colspan="5" style="border-top: 1px solid #ccc;"> $\frac{\Box}{\Box}$ \Box^{\Box} (\Box) $$ $\sqrt{\Box}$ $\sqrt[\Box]{\Box}$ π </td> </tr> </table> </div> </div>		Days (d)	Total Cost (C)	2	\$105	4	\$195	6	\$285	10	\$465	1	2	3	d	C	4	5	6	+	-	7	8	9	•	÷	0	.	-	<	≤				=	≥				>		$\frac{\Box}{\Box}$ \Box^{\Box} (\Box) $ $ $\sqrt{\Box}$ $\sqrt[\Box]{\Box}$ π				
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