**Function Applications – Highway Driving**

Leon went to his Grandma’s home for Thanksgiving. His dad set the cruise control at 60 miles per hour while they drove on the highway. They travelled on the highway for 4 hours. **Create a function that models the distance traveled on the highway, d** (in miles), **after they have driven on the highway for t hours.**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. Independent variable:
2. Dependent variable:
3. Write the equation for this function.
4. Use function notation to express the function.
5. We can say \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a

function of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.1. Find the distance Leon’s family travelled after driving for 3.2 hours on the highway. Use function notation.
2. Find the time it took for Leon’s family to travel 175 miles on the highway.
3. What are the domain and range of this function?
 | 1. Complete the table below.

|  |  |
| --- | --- |
| **Input** | **Output** |
|  |  |
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|  |  |
|  |  |
|  |  |

 1. Graph the function on the axes below. Scale and label the axes.

 C:\Users\TRAVEL\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\G5RXD1SG\highway version c.png  |

1. Identify the shape of this graph using the Parent Function Reference Sheet.