

Vocabulary Toolkit

	Term	Definition / Additional Information				
3.2 T	Function	A relation between a set of inputs and a set of outputs with the property that each input is related exactly to one output.				
3.0	Interval Notation	<p>A shorthand alternative to expressing an interval as an inequality. When using interval notation, the symbol:</p> <p style="margin-left: 40px;">(means "not included" or "open".</p> <p style="margin-left: 40px;">[means "included" or "closed".</p> <p><i>For example:</i></p> <table border="1" style="margin-left: 40px;"> <tr> <td>$2 \leq x < 6$</td> <td>in inequality notation.</td> </tr> <tr> <td>$[2, 6)$</td> <td>in interval notation.</td> </tr> </table> <p>**Always minimum to maximum on a continuous interval!</p>	$2 \leq x < 6$	in inequality notation.	$[2, 6)$	in interval notation.
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$[2, 6)$	in interval notation.					
3.2 T	Maximum Value	The greatest (highest) output value for which the function is defined. If the function goes towards ∞ , we say there is “no maximum”.				
3.2 T	Minimum Value	The least (lowest) output value for which the function is defined. If the function goes towards $-\infty$, we say there is “no minimum”.				
3.2 T	Range	The set of output values for which the function is defined.				
3.0	Set Notation	<p>Notation that generally uses compound inequalities along with the symbols $\{x \dots\}$, placed around intervals to denote “<i>the set of all x values such that...</i>”. Note that for a <i>discrete set</i>, the possible values must be listed in this notation.</p> <p><i>For example:</i></p> <table border="1" style="margin-left: 40px;"> <tr> <td> $\{x \mid x = -1, 0, 2, 5\}$ or $\{x \mid \in \mathbb{Z}, 2 \leq x < 6\}$ </td> <td>a discrete function</td> </tr> <tr> <td> $\{x \mid \in \mathbb{R}, 2 \leq x < 6\}$ or $\{x \mid \in \mathbb{R}, -\infty < x < \infty\}$ </td> <td>a continuous function</td> </tr> </table>	$\{x \mid x = -1, 0, 2, 5\}$ or $\{x \mid \in \mathbb{Z}, 2 \leq x < 6\}$	a discrete function	$\{x \mid \in \mathbb{R}, 2 \leq x < 6\}$ or $\{x \mid \in \mathbb{R}, -\infty < x < \infty\}$	a continuous function
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