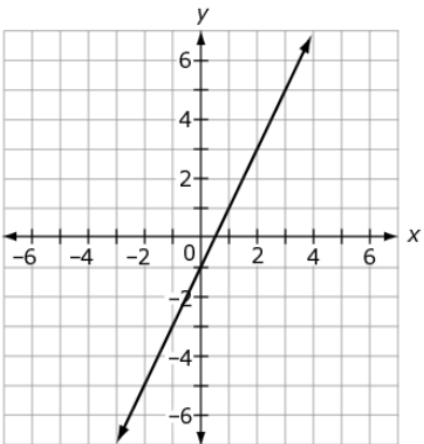


Content Standard	<b>MAFS.8.F Functions</b>  <b>MAFS.8.F.1</b> Define, evaluate, and compare functions.  <b>MAFS.8.F.1.2</b> Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.</i>													
Assessment Limits	Function notation is not used. Functions must be linear.													
Calculator	Yes													
Item Types	Equation Editor GRID Matching Item Multiple Choice Multiselect Open Response Table Item													
Context	Allowable													
Sample Item		Item Type												
Drag each function to the box to show the least rate and the greatest rate. <div><div><table><tr><th>Least</th><th>Greatest</th></tr><tr><td></td><td></td></tr></table></div><div><div><math>y = 5x + 4</math></div><table><tr><th><math>x</math></th><th><math>y</math></th></tr><tr><td>-1</td><td>-6</td></tr><tr><td>0</td><td>-3</td></tr><tr><td>2</td><td>3</td></tr></table></div></div>		Least	Greatest			$x$	$y$	-1	-6	0	-3	2	3	Matching Item
Least	Greatest													
$x$	$y$													
-1	-6													
0	-3													
2	3													

Sample Item	Item Type																																						
<div style="text-align: right; margin-bottom: 10px;">Equation Editor</div> <p>Two linear functions are shown.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <p>Function 1:</p>  </div> <div style="width: 45%;"> <p>Function 2:</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;"><math>x</math></th> <th style="padding: 5px;"><math>y</math></th> </tr> </thead> <tbody> <tr> <td style="text-align: center; padding: 5px;">-2</td> <td style="text-align: center; padding: 5px;">-4</td> </tr> <tr> <td style="text-align: center; padding: 5px;">0</td> <td style="text-align: center; padding: 5px;">-3</td> </tr> <tr> <td style="text-align: center; padding: 5px;">2</td> <td style="text-align: center; padding: 5px;">-2</td> </tr> </tbody> </table> </div> </div> <p>Create an equation for a third function that has a greater rate of change than one function but a smaller rate of change than the other function.</p> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <div style="border-bottom: 1px solid #ccc; height: 25px; margin-bottom: 5px;"></div> <div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; align-items: center; gap: 5px; margin-bottom: 5px;"> <span>←</span> <span>→</span> <span>↶</span> <span>↷</span> <span>✖</span> </div> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 25px;">1</td><td style="width: 25px;">2</td><td style="width: 25px;">3</td><td style="width: 25px;"><math>x</math></td><td style="width: 25px;"><math>y</math></td></tr> <tr> <td>4</td><td>5</td><td>6</td><td>+</td><td>-</td><td>•</td><td>÷</td></tr> <tr> <td>7</td><td>8</td><td>9</td><td>&lt;</td><td>≤</td><td>=</td><td>≥</td><td>&gt;</td></tr> <tr> <td>0</td><td>.</td><td>-</td><td><math>\frac{\Box}{\Box}</math></td><td><math>\Box^\Box</math></td><td>( )</td><td><math>\Pi</math></td><td><math>\sqrt{\Box}</math></td><td><math>\sqrt[\Box]{\Box}</math></td><td><math>\pi</math></td></tr> </table> </div> </div>		$x$	$y$	-2	-4	0	-3	2	-2	1	2	3	$x$	$y$	4	5	6	+	-	•	÷	7	8	9	<	≤	=	≥	>	0	.	-	$\frac{\Box}{\Box}$	$\Box^\Box$	( )	$\Pi$	$\sqrt{\Box}$	$\sqrt[\Box]{\Box}$	$\pi$
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