

Inverse of quadratic function

<p style="text-align: center;">Verbal</p>	<p style="text-align: center;">Tabular</p> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;"><math>x</math></td> <td style="padding: 5px;"><math>f(x)</math></td> <td style="padding: 5px;"><math>x</math></td> <td style="padding: 5px;"><math>f^{-1}(x)</math></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	$x$	$f(x)$	$x$	$f^{-1}(x)$																
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<p style="text-align: center;">Graphical</p> <div style="border: 1px solid black; width: 100%; height: 150px; position: relative;"> </div>	<p style="text-align: center;">Algebraic</p>																				

Quadratic  
 $f(x) = x^2 - 1$   
 $x \geq 0$   
 $y \geq -1$

## Answer Key

Verbal	Tabular																								
	<table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr><th><math>x</math></th><th><math>f(x)</math></th></tr> </thead> <tbody> <tr><td>0</td><td>-1</td></tr> <tr><td>1</td><td>0</td></tr> <tr><td>2</td><td>3</td></tr> <tr><td>3</td><td>8</td></tr> <tr><td>4</td><td>15</td></tr> </tbody> </table> <table border="1" style="display: inline-table;"> <thead> <tr><th><math>x</math></th><th><math>f^{-1}(x)</math></th></tr> </thead> <tbody> <tr><td>0</td><td>1</td></tr> <tr><td>3</td><td>2</td></tr> <tr><td>8</td><td>3</td></tr> <tr><td>15</td><td>4</td></tr> <tr><td>24</td><td>5</td></tr> </tbody> </table>	$x$	$f(x)$	0	-1	1	0	2	3	3	8	4	15	$x$	$f^{-1}(x)$	0	1	3	2	8	3	15	4	24	5
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	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p style="text-align: center;">Quadratic</p> <math display="block">f(x) = x^2 - 1</math> <math display="block">x \geq 0</math> <math display="block">y \geq -1</math> </div>																								
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	$y = x^2 - 1$ $x = y^2 - 1$ $x + 1 = y^2$ $\pm\sqrt{x + 1} = y$ $f^{-1}(x) = \sqrt{x + 1}$ <p>Domain: <math>x \geq -1</math> Range: <math>y \geq 0</math></p>																								