

Name:

Period:

First Score:	First attempt due:	Final Score:
	Final corrections due:	

Practice Worksheet:
Graphing Square Root Functions

Graph each square root function and describe its characteristics.

1] $y = 2\sqrt{x - 2} - 4$
 Endpoint:
 Guide point using a :
 y-intercept:
 Extra guide point: (6, _____)

Domain: Range:

2] $y = -3\sqrt{x + 6}$
 Endpoint:
 Guide point using a :
 y-intercept:
 Extra guide point: (3, _____)

Domain: Range:

3] $y = \sqrt{-(x - 4)} + 4$
 Endpoint:
 Guide point using a :
 y-intercept:
 Extra guide point: (-5, _____)

Domain: Range:

4] $y = -6\sqrt{-x + 4} + 3$
 Endpoint:
 Guide point using a :
 y-intercept:
 Extra guide point: (1, _____)

Domain: Range:

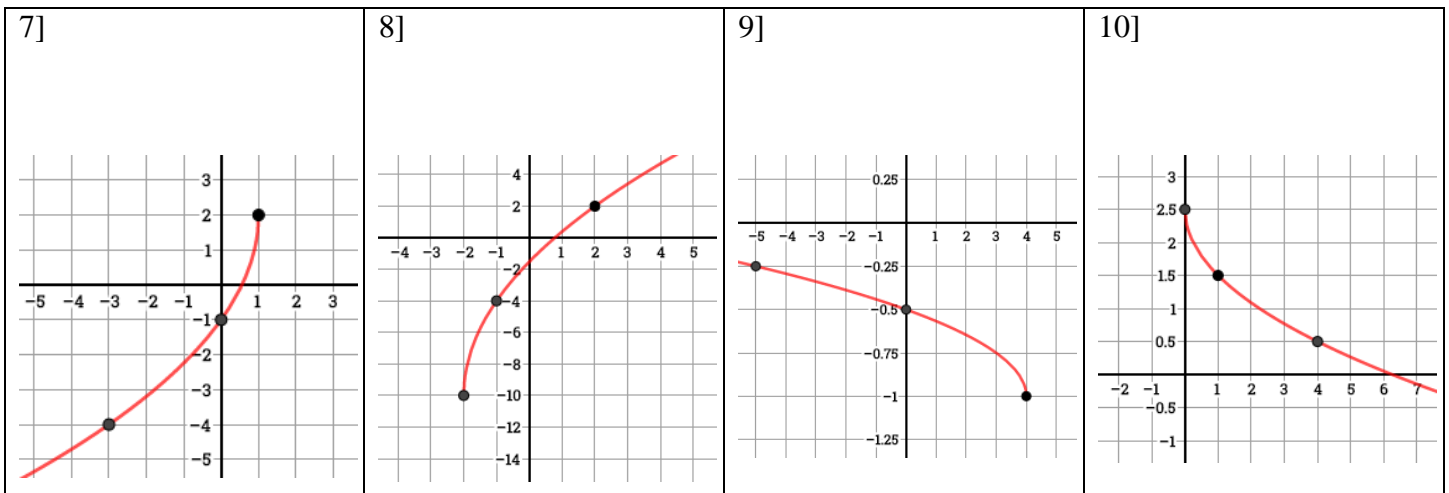
5] $y = \frac{1}{2}\sqrt{-x} - 1$
 Endpoint:
 Guide point using a :
 y-intercept:
 Extra guide point: (-9, _____)

Domain: Range:

6] $y = 1.5\sqrt{x + 2} + 0.5$
 Endpoint:
 Guide point using a :
 y-intercept:
 Extra guide point: (2, _____)

Domain: Range:

Write the equation of the radical function.



Describe each graph as compared to the parent graph $y = \sqrt{x}$.

<p>11] $y = -8\sqrt{x + 10} - 32$</p> <p>The graph of this _____ function has been translated _____ 32 units and translated _____ units to the _____. It has been _____ in the ____-axis and vertically _____ by a factor of _____. It has an endpoint at _____ and is _____ from left to right. The function has a domain of _____ and a range of _____.</p>	<p>12] $y = 0.25\sqrt{-x + 5} + 2.5$</p> <p>The graph of this _____ function has been translated _____ 2.5 units and translated _____ units to the _____. It has been _____ in the ____-axis and vertically _____ by a factor of _____. It has an endpoint at _____ and is _____ from left to right. The function has a domain of _____ and a range of _____.</p>
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Write the equation that meets the given description. Show all work.

<p>13] A radical function that has an endpoint at the origin and passes through the point $(-16, 3)$.</p>	<p>14] A radical function that has a domain of $x \geq -4$ and a range of $y \leq 8$ and was vertically stretched by a factor of 9.</p>	<p>15] A radical function that has a domain of $x \leq 0$ and a range of $y \leq -5$ that passes through the point $(-9, -23)$.</p>
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