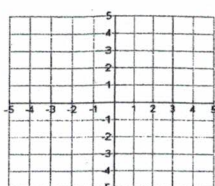
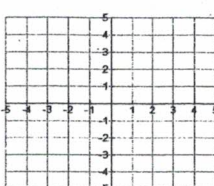
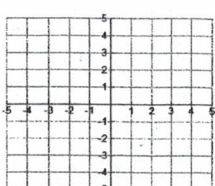
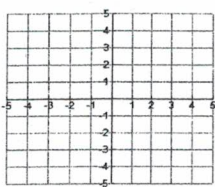
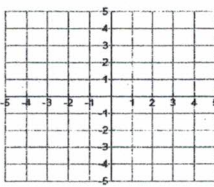
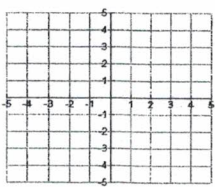


**I. Do the following - a.) Draw in the original and transformed square root function.
b.) State the domain and range of the transformed function.**

<p>1.) Given Function: $y = \sqrt{x} + 2$</p> <p>Transformations: _____</p>  <p>Domain: _____ Range: _____</p>	<p>2.) Given Function: $y = \sqrt{x-1}$</p> <p>Transformations: _____</p>  <p>Domain: _____ Range: _____</p>	<p>3.) Given Function: $y = -\sqrt{x} - 3$</p> <p>Transformations: _____</p>  <p>Domain: _____ Range: _____</p>
<p>4.) Given Function: $y = \sqrt{x+4} + 2$</p> <p>Transformations: _____</p>  <p>Domain: _____ Range: _____</p>	<p>5.) Given Function: $y = \sqrt{x-2} - 4$</p> <p>Transformations: _____</p>  <p>Domain: _____ Range: _____</p>	<p>6.) Given Function: $y = -\sqrt{x+3} + 3$</p> <p>Transformations: _____</p>  <p>Domain: _____ Range: _____</p>

II. Complete each word problem involving square roots.

<p>7.) The equation $s = 3\sqrt{4x}$ can be used to estimate the speed, s, of a car in miles per hour, given the length in feet, x, of the tire marks it leaves on the ground. A car traveling 60 miles per hour came to a sudden stop. How long would the tire marks be for this car?</p>	<p>8.) The size of a computer monitor is given as the length of the screen's diagonal d in inches. The equation $d = \frac{5}{6}\sqrt{3A}$ models the length of a diagonal of a monitor screen with area A in square inches. What is the area of a monitor if the length of its diagonal is 15 inches?</p>	<p>9.) You can time t, in seconds, an object takes to reach the ground falling from height H, in meters, by $t(H) = \sqrt{\frac{2H}{g}}$ where the value of gravity, g, is 9.81 m/s^2. If an object takes 7 seconds to fall to the ground, what was its initial height?</p>
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