$$y = 3\sqrt{2 - x} + 1$$

$$\downarrow D^{-1}$$

$$y + 1 = 3\sqrt{2 - x} + 1$$

$$\downarrow C^{-1}$$

$$3y + 1 = 3\sqrt{2 - x} + 1$$

$$\downarrow B^{-1}$$

$$3y + 1 = 3\sqrt{2 - (x + 2)} + 1$$

$$\downarrow A^{-1}$$

$$3y + 1 = 3\sqrt{2 - (-x + 2)} + 1$$