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/m143.sp07/handouts143/q316/q316_143

These are alleged answers. For each error herein, you get extra-credit points for being the first to report it by e-mail.

- 1 To find the inverse for $f(x) = 2 - \sqrt[3]{x+4}$, we rewrite:

$$\begin{aligned}y &= 2 - \sqrt[3]{x+4} \\x &= 2 - \sqrt[3]{y+4} \\x - 2 &= -\sqrt[3]{y+4} \\-(x - 2) &= \sqrt[3]{y+4} \\(-(x - 2))^3 &= y + 4 \\-(x - 2)^3 &= y + 4 \\-(x - 2)^3 - 4 &= y\end{aligned}$$

Thus

$$f^{-1}(x) = -(x - 2)^3 - 4$$

As for the graph of f^{-1} , it is a cubic that has been reflected over the x -axis and shifted downward and to the right:

