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$$\text{ex) } \left(\frac{64m^{-6}}{343y^{18}} \right)^{2/3} = \frac{16m^{-4}}{49y^{12}}$$

$$= \frac{16}{49y^{12}m^4}$$

$$\text{ex) } \sqrt{50x^5y} = \sqrt{25 \cdot 2} \sqrt{x^4} \cdot \sqrt{x} \sqrt{y}$$

$$= 5x^2\sqrt{2xy}$$

ex) $y = \sqrt{x} - 1$ how does the function transform from parent?
 shifts down 1
 D: $x \geq 0$ $[0, \infty)$ what is domain?
 R: $[-1, \infty)$ what is range?

ex) $g(x) = \sqrt{x+7}$
 identify domain & range
 $x+7 \geq 0$ D: $[-7, \infty)$ R: $[0, \infty)$

ex) $g(x) = -5\sqrt{x}$ what is domain & range
 flips x-axis
 D: $(-\infty, 0]$ R: $(-\infty, 0]$