Exercise 14

Radicals and Exponents Write each radical expression using exponents, and each exponential expression using radicals.

Radical expression	Exponential expression
14.	$2^{-1.5}$

Solution

Write the exponential expression as a radical expression.

$$2^{-1.5} = 2^{-3/2} = \frac{1}{2^{3/2}} = \frac{1}{2^{3\left(\frac{1}{2}\right)}} = \frac{1}{(2^3)^{1/2}} = \frac{1}{\sqrt{2^3}}$$