

Objective #14

Write square roots as exponential expressions

1. Write $\sqrt{6y}$ in exponential form.

[A] $(6y)^{1/2}$

[B] $(6y)^{1/4}$

[C] $(6y)^2$

[D] $6y^2$

$$\sqrt{\quad} = 1/2$$

$$\Rightarrow \sqrt{6y} = (6y)^{1/2}$$

2. Express using fractional exponents: $\sqrt[9]{c^5}$

[A] $5^{9/5}$

[B] $c^{9/5}$

[C] $c^{5/9}$

[D] $c^{1/45}$

$$\sqrt[m]{x^n} = x^{n/m}$$

$$\Rightarrow \sqrt[9]{c^5} = c^{5/9}$$

3. Write $\sqrt{30xy^3}$ in an exponential form.

$$(30xy^3)^{1/2}$$

4. Express using fractional exponents: $\sqrt[9]{h^7}$

$$\sqrt[m]{x^n} = x^{n/m}$$

$$\Rightarrow \sqrt[9]{h^7} = h^{7/9}$$