**Rewrite and simplify the following expressions in rational exponent form.**

|  |  |  |
| --- | --- | --- |
| 1. $\sqrt{a}$

  | 1. $\sqrt[3]{x}$

  | 1. $\sqrt[3]{x^{6}}$

  |
| 1. $\sqrt[4]{z^{2}}$

 | 1. $\sqrt{x^{3}x^{2}x^{7}}$

 | 1. $\sqrt[5]{x^{3}y^{2}y^{9}}$

 |
| 1. $ \frac{\sqrt{x^{0}}}{\sqrt[6]{y^{0}}}$

 **1** | 1. $ \frac{\left(a^{4}b^{3}\right)^{0}}{\sqrt[7]{a^{7}}}$

 | 1. $ \sqrt[3]{x^{2}}∙\sqrt{x}$

 |
| 1. $ \frac{\sqrt[3]{x^{2}}}{\sqrt{x}}$

  | 1. $\left(\sqrt[3]{y}\right)^{3}$

 y | 1. $\left(\sqrt[4]{x}\right)^{4}$

 x |
| 1. $\left(\sqrt[3]{y}\right)^{12}$

  | 1. $\left(x^{5}\right)^{\frac{1}{5}} $

 x | 1. $\left(x^{10}\right)^{\frac{1}{5}}$

  |

**Solve for x. Round answers to 2 decimal places if necessary.**

|  |  |  |
| --- | --- | --- |
| 1. $\sqrt{x }=10$

X=100 | 1. $\sqrt[3]{x}=5$

X=125 | 1. $ x^{3}=27$

 X=3 |
| 1. $ x^{5}=32$

X=2 | 1. $x^{8}=16$

X=1.41 | 1. $x^{15}=100$

X=1.36 |