

## Error Analysis: Power Equations

Original Work	What's the mistake?	Correct Work
<p>1. <math display="block">\frac{1-x^{24}=-1}{+3 \quad +3}</math></p> <p><math display="block">\frac{\frac{1}{3}x^{24} = \frac{-2}{3}}</math></p> <p><math display="block">\frac{(x^{24})^{\frac{1}{3}} = (-\frac{2}{3})^{\frac{1}{3}}}{\sqrt[3]{NR5}}</math></p> <p><math display="block">x = (-\frac{2}{3})^{\frac{1}{3}} = \sqrt[3]{-\frac{2}{3}}</math></p>		<p><math display="block">1-x^{24} = -1</math></p>
<p>2. <math display="block">\frac{x^3+12=20}{-12 \quad -12}</math></p> <p><math display="block">\frac{(x^3)^{\frac{1}{3}} = (8)^{\frac{1}{3}}}{\sqrt[3]{NR5}}</math></p> <p><math display="block">x = 8^{\frac{1}{3}} = \sqrt[3]{8}</math></p> <p><math display="block">\boxed{x = 2}</math></p>		<p><math display="block">x^3+12 = 20</math></p>
<p>3. <math display="block">\frac{5x^5-300=-60}{+300 \quad +300}</math></p> <p><math display="block">\frac{\frac{5}{30}x^5 = \frac{-240}{5}}</math></p> <p><math display="block">\frac{\sqrt[5]{x^5} = \sqrt[5]{-48}}{\sqrt[5]{NR5}}</math></p> <p><math display="block">x = \sqrt[5]{-48}</math></p> <p><math display="block">\boxed{x = 12}</math></p>		<p><math display="block">5x^5 - 300 = -60</math></p>