$$
\begin{aligned}
& 81^{-3 / 4}=\frac{1}{81^{3 / 4}}=\frac{1}{\sqrt[4]{1^{13}}}=\frac{1}{3^{3}}=\frac{1}{27} \\
& \text { 27. } \sqrt{\frac{24}{25}}=.979 \ldots \\
& \frac{\sqrt{24}}{\sqrt{25}}=\frac{\text { iration }}{5} \\
& \text { 108. } g(x)=\frac{10}{\sqrt[3]{x}} \\
& \sqrt[3]{x}=0 \\
& \text { Rexapt, } x=0 \\
& x \neq 0
\end{aligned}
$$

22. 

$$
\begin{equation*}
\sqrt[5]{32}=32^{\frac{1}{5}} \tag{2}
\end{equation*}
$$

34. $256^{3}=64$

$$
\sqrt[4]{256^{3}}=64
$$

105. $f(x)=3 \sqrt{x}$

$$
x \geq 0
$$

107. $g(x)=\frac{2}{\sqrt[4]{x}}$

$$
\begin{array}{ll}
\sqrt[4]{x}=0 & x \geq 0 \\
x \neq 0 & x>0
\end{array}
$$

$$
\begin{aligned}
& 0-7+ \\
& 8-15 \mathrm{~V} \\
& 16 \uparrow-
\end{aligned}
$$

5.L Pioperties of Exporents

1. $a^{0}=1$
2. $\left(\frac{a}{b}\right)^{-m}=\left(\frac{b}{a}\right)^{m}$
3. $(a b)^{m}=a^{m} b^{m}$
4. $\left(\frac{a}{b}\right)^{m}=\frac{a^{m}}{b^{m}}$
5. $\left(a^{m}\right)^{n}=a^{m \cdot n}$
6. $a^{m} \cdot a^{n}=a^{m+n}$
7. $\quad \frac{a^{m}}{a^{n}}=a^{m-n}$
8. $a^{-m}=\frac{1}{a^{m}}$

$$
E x: \sqrt[3]{x^{12}}=x^{\frac{12}{3}}=x^{4}
$$

$$
\begin{aligned}
& x^{2} \sqrt{x^{3}} \\
& x^{2} \cdot x^{\frac{3}{2}}=x^{2+\frac{3}{2}}=x^{\frac{7}{2}} \\
& \frac{x^{\frac{3}{4}} \cdot x^{\frac{1}{2}}}{x^{\frac{5}{2}}}=\frac{x^{\frac{5}{4}}}{x^{\frac{5}{2}}}=\frac{1}{x^{\frac{5}{4}}}=x^{-\frac{5}{4}}
\end{aligned}
$$

$$
\begin{aligned}
& \frac{x^{\frac{4}{3}} y^{\frac{2}{3}}}{(x-y)^{\frac{1}{3}}} \\
& \frac{x^{\frac{4}{3}} y^{\frac{2}{3}}}{\left(x^{\frac{1}{3}} \sqrt{y^{\frac{1}{3}}}\right.} \\
&= \frac{x^{\frac{4}{2}} \sqrt{3}_{\frac{1}{3}}^{1}}{x^{\frac{1}{3}} y^{\frac{1}{3}}}=x y^{\frac{1}{3}}=x \sqrt[3]{y}
\end{aligned}
$$

$$
\sqrt{\sqrt[3]{x}}
$$

$$
\text { p. } 32.1
$$

52-100 even
odds E.C.

