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| **Angles** |
| **Exponents****The Product Rule** $$a^{m}⋅a^{n}=a^{m+n}$$examples:$t^{4}⋅t^{2}=t^{4+2}=t^{6}$ $3^{8}⋅3^{4}=3^{8+4}=3^{12}$ |
| **Exponents****The Quotient Rule** $$\frac{a^{m}}{a^{n}}=a^{m-n}$$examples:$\frac{x^{6}}{x^{4}}=x^{6-4}=x^{2}$ $\frac{2^{8}}{2^{3}}=2^{8-3}=2^{5}$ |
| **Exponents****The Power Rule** $$\left(a^{m}\right)^{n}=a^{m⋅n}$$examples:$\left(b^{4}\right)^{3}=b^{4⋅3}=b^{12}$ $\left(4^{5}\right)^{6}=4^{5⋅6}=4^{30}$ |
| **Exponents****Product to a Power** $$\left(ab\right)^{n}=a^{n}b^{n}$$examples:$\left(rw\right)^{2}=r^{2}w^{2}$ $\left(5t\right)^{3}=5^{3}t^{3}$ |
| **Exponents****Quotient to a Power** $$\left(\frac{a}{b}\right)^{n}=\frac{a^{n}}{b^{n}}$$examples:$\left(\frac{y}{z}\right)^{4}=\frac{y^{4}}{z^{4}}$ $\left(\frac{4}{d}\right)^{5}=\frac{4^{5}}{d^{5}}$ |
| **Exponents****Exponent of 1**$$a^{1}=a$$examples:$h^{1}=h$ $7^{1}=7$ $99^{1}=99$ |
| **Exponents****Exponent of 0**$$a^{0}=1$$examples:$x^{0}=1$ $9^{0}=1$ $67908615^{0}=1$ |
| **Exponents****Negative Exponent** $a^{-n}=\frac{1}{a^{n}}$ and $\frac{1}{b^{-n}}=b^{n}$examples:$k^{-4}=\frac{1}{k^{4}}$ $t^{2}7^{-3}=\frac{t^{2}}{7^{3}}$ $\frac{1}{p^{-5}}=p^{5}$ $\frac{3^{-5}}{x^{-6}}=\frac{x^{6}}{3^{5}}$ $$.$$ |
| **Exponents****Parts** |
| **Exponents****Radical to Exponent Form**$$a^{\frac{m}{n}}=\sqrt[n]{a^{m}}$$examples:$b^{\frac{7}{3}}=\sqrt[3]{b^{7}}$ $6^{\frac{11}{2}}=\sqrt{6^{11}}$  |
| **Radical****Parts** |