Exponents - Worksheet

Evaluate or simplify. If the values are greater than 150, you don’t need to evaluate.

$A=\frac{2^{3}×2^{5}}{2^{4}×2^{8}}$

$B=\frac{8x^{5}y^{-4}}{16x^{8}y^{2}}$

$C=\left(2x^{3}y\right)^{2}.\left(\frac{3}{4}x^{2}y^{5}\right)^{-2}$

$D=\left[\left(\frac{3}{4}\right)^{2}×\left(\frac{3}{4}\right)^{-3}\right]^{-2}$

$E=\frac{\left(3xy\right)^{2}\left(2x^{2}y\right)^{-1}}{\left(2xy^{2}\right)^{-3}}$

$F=\left(2x^{3}y^{-2}\right)^{-4}\left(3xy^{-5}\right)^{2}$

$G=2^{-5}x^{6}y×\left(\frac{3}{5}x^{2}y^{-1}\right)^{-2}$

$H=\frac{16x^{2}y^{-3}}{8x^{3}y^{2}}$

$I=\frac{-32x^{2}y^{4}}{64x^{3}y^{5}}$

$J=\left(\frac{7x^{3}}{14x^{-5}}\right)^{-2}$

$K=\left(\frac{3.2x^{3}y^{5}}{1.6x^{2}y^{-1}}\right)^{-3}$

$L=\frac{2^{x+3}×2^{3x+1}}{2^{x-3}}$

$M=\left(\frac{3^{x+1}}{3^{x-5}}\right)^{\frac{1}{3}}$

$N=\left(5^{x+3}\right)^{2}×\frac{3}{5^{2x+1}}$

$P=\frac{x^{5}\left(3x^{2}y^{-3}\right)^{2}}{9x^{3}y^{-2}}$

$Q=\left(\frac{2a^{-2}b^{3}}{3a^{3}b^{2}}\right)^{-3}$

$R=\left(5^{0}a^{2}b^{-3}\right)^{-2}\left(5a^{3}b^{-2}\right)^{2}$

$S=\frac{2xy^{0}\left(3x^{2}y^{-4}\right)^{-3}}{\left(2xy\right)^{2}}$

$T=\frac{3^{3}-3^{5}}{3^{2}-3^{0}}$

$U=\left(2x^{\frac{1}{2}}y^{\frac{2}{3}}\right)^{-6}\left(2xy^{-3}\right)^{2}$

$V=\frac{6^{5}}{6}$

$W=\left(\frac{2}{3}x^{2}y^{-3}\right)^{-3}\left(\frac{9}{4}x^{-3}y^{-4}\right)^{2}$

$X=\left(\frac{5x^{2}y^{3}}{7x^{-3}y}\right)^{-2}\left(\frac{5}{7}x^{-2}y^{0}\right)^{3}$

$Y=\frac{3^{17}}{3^{20}}$

$Z= \frac{5^{3}×2^{-3}}{2^{5}×5^{4}}$

$A^{'}=\frac{27^{3}x^{-5}y^{2}}{9^{4}x^{-2}y^{-3}}$

$B^{'}=\left(3x^{2}y^{-3}\right)^{-4}$

$C^{'}=\left(\frac{2x^{3}y^{2}}{3x^{8}y^{-4}}\right)^{-5}$

$D^{'}=\left(\frac{2}{3}x^{2}y^{-4}\right)^{-3}\left(\frac{2}{3}x^{-3}y^{5}\right)^{2}$

$E^{'}=\left(5x-3\right)^{2}$

$F^{'}=\frac{2^{6}-2^{5}}{2^{4}-2^{3}}$

$G^{'}=\frac{5x^{2}y^{-1}\left(2xy^{3}\right)^{4}}{10x^{3}y^{-5}}$

$H^{'}=\frac{\left(0.3x^{2}y^{3}\right)^{5}}{\left(3xy^{-2}\right)^{-4}}$