**Simplify the following. Answers should contain only positive exponents. Find the value of any constants.**

|  |  |  |  |
| --- | --- | --- | --- |
| 1) $4x^{3}∙2x^{3}$ | 2) $\frac{6^{5}}{6^{3}}$ | 3) $\frac{x^{4}}{x^{7}}$ | 4) $8^{0}$ |
| 5) $-\left(9x\right)^{0}$ | 6) $\left(y^{4}\right)^{3} $ | 7) $\left(x^{2}y\right)^{4}$ | 8) $\frac{6x^{7}}{2x^{4}}$ |
| 9) $\left(2cd^{4}\right)^{2}\left(cd\right)^{5}$ | 10) $\left(2fg^{4}\right)^{4}\left(fg\right)^{6}$ | 11) $\frac{x^{5}y^{6}}{xy^{2}}$ | 12) $\left(\frac{4x^{5}y}{16xy^{4}}\right)^{3}$ |
| 13) $\left(\frac{5x^{3}y}{20xy^{5}}\right)^{4}$ | 14) $y^{-7}$ | 15) $(7^{-2})m^{3}$ | 16) $\frac{1}{x^{-5}}$ |
| 17) $x^{5}∙x^{-1}$ | 18) $\frac{x^{-1}}{x^{-8}}$ | 19) $f^{-3}\left(f^{2}\right)\left(f^{-3}\right)$ | 20) $\left(\frac{-7a^{2}b^{3}c^{0}}{3a^{3}b^{4}c^{3}}\right)^{4}$ |
| 21) $8^{\frac{1}{3}}$ | 22) $81^{\frac{1}{4}}$ | 23) $27^{\frac{2}{3}}$ | 24) $125^{\frac{4}{3}}$ |