Exponents

Evaluate:

(1.1) 5^{-1}

(1.2) 4^{-1}

(1.3) 5^{-2}

(1.4) 4^{-2}

(1.5) 2^{-4}

(1.6) 3^{-5}

(1.7) $4^{-2}(4^5)$

(1.8) $3^7(3^{-9})$

(1.9) $(3^{-2})^{-2}$

(1.10) $\left(5^{-1}\right)^{-3}$

(1.11) $\dfrac{3}{3^{-2}}$

(1.12) $\dfrac{6^{-2}}{6^{-3}}$

(1.13) $\dfrac{8\cdot 8^{-2}}{8^{-3}}$

(1.14) $\dfrac{7^{-2}\cdot 7^5}{7^3}$

(1.15) $\left(\dfrac{3^{-1}}{3}\right)^2$

(1.16) $\left(\dfrac{8^4}{8^{-4}}\right)^0$

(1.17) $\left(\dfrac{9^3\cdot 9}{9^5}\right)^{-3}$

(1.18) $\dfrac{\left(4^{-2}\cdot 3\right)^3}{4^{-6}}$

Simplify. Give answers in terms of positive exponents.

(1.19) $7x^{-1}$

(1.20) $8a^{-2}$

(1.21) $x^{-1}y^2$

(1.22) $a^{-2}b^{-3}$

(1.23) $(a^{-2})^3$

(1.24) $\left(b^{-1}\right)^{-3}$

(1.25) $a^{-2}b^{-3}$

(1.26) $\left(3x^{-2}\right)^3$

(1.27) $x^3\cdot x^{-5}$

(1.28) $y^3\cdot y^{-3}$

(1.29) $(a^2\cdot a^{-5})^2$

(1.30) $\left(b^5\cdot b^{-7}\right)^3$

(1.31) $\dfrac{a^5}{a^{-3}}$

(1.32) $\dfrac{b^7}{b^{-7}}$

Exponents

(1.33) $\frac{c^{-5}}{c^{2}}$

(1.34) $\frac{d^{-3}}{d^{-5}}$

(1.35) $\left(\frac{x^{-2}}{x^{-4}}\right)^{3}$

(1.36) $\left(\frac{a^{-1}}{a^{4}}\right)^{2}$

(1.37) $\left(\frac{n^{-3}}{n}\right)^{-2}$

(1.38) $\left(\frac{y^{-5}}{y^{-2}}\right)^{-3}$

(1.39) $\left(\frac{x^{-2}yz^{-3}}{x^{-3}yz^{4}}\right)^{-2}$

(1.40) $\left(\frac{ab^{-3}c^{4}}{a^{-2}b^{3}c^{-1}}\right)^{-2}\left(\frac{b^{3}c^{-2}}{a^{-3}bc^{-2}}\right)^{-1}$