6.1 even 1-51 EOE

(2) $9^{-2} = \frac{1}{9}$

(4) $4^{-3} = \frac{1}{4^3} = \frac{1}{64}$

(6) $(-7)^{-2} = \frac{1}{(-7)^2} = \frac{1}{49}$

(8) $-7^{-2} = -\frac{1}{7^2} = -\frac{1}{49}$

(10) $6^{-1} = \frac{1}{6}$

(12) $3^{-1} - 6^{-1} = \frac{1}{3} - \frac{1}{6} = \frac{2}{6} - \frac{1}{6} = \frac{1}{6}$

(14) $\frac{1}{4^{-3}} = 4^3 = 64$

(16) $\frac{1}{(-2)^{-2}} = (-2)^2 = 4$

(18) $\frac{4^{-3}}{2^{-2}} = \frac{2^2}{4^3} = \frac{4}{4^3} = \frac{1}{4^2} = \frac{1}{16}$

(20) $\left(\frac{1}{5}\right)^{-2} = \left(\frac{5}{1}\right)^2 = 25$

(22) $\left(\frac{3}{4}\right)^{-3} = \left(\frac{4}{3}\right)^3 = \frac{64}{27}$

(24) $\frac{1}{8x^{-6}} = \frac{x^6}{8}$

(26) $\frac{x^{-12}}{y^{-1}} = \frac{y}{x^{12}}$

(28) $\frac{4}{(-3)^{-3}} = 4(-3)^3 = 4(-27) = -104$

(30) $x^{-11} \cdot x^5 = x^{-6} = \frac{1}{x^6}$

(32) $(5x^{-7})(3x^3) = 15x^{-4} = \frac{15}{x^4}$

(34) $\frac{x^5}{x^{12}} = \frac{1}{x^7}$

(36) $\frac{y}{y^{50}} = \frac{1}{y^{49}}$

(38) $\frac{45z^4}{15z^{12}} = \frac{3}{z^8}$

(40) $\frac{-15x^4}{3x^9} = \frac{-5}{x^5}$

(42) $\frac{-15a^4}{45a^{13}} = \frac{-1}{3a^9}$

(44) $\frac{7w^8}{9w^{14}} = \frac{7}{9w^6}$

(46) $\frac{x^5}{(x^3)^2} = \frac{x^5}{x^6} = \frac{1}{x}$

(48) $\frac{y^{-5}}{(y^3)^2} = \frac{y^{-5}}{y^6} = \frac{1}{y^{11}}$

(50) $\frac{(5x^3)^2}{x^7} = \frac{25x^6}{x^7} = \frac{25}{x}$

(52) $\frac{(4y^5)^3}{y^{-4}} = \frac{64y^{15}}{y^{-4}} = 64y^{19}$

(54) $\left(\frac{x^6}{x^2}\right)^{-3} = (x^4)^{-3}$

$= x^{-12}$

$= \boxed{\frac{1}{x^{12}}}$

(56) $\left(\frac{6x^7}{2x^2}\right)^{-4} = (3x^4)^{-4}$

$= \frac{1}{(3x^4)^4}$

$= \boxed{\frac{1}{81x^{16}}}$

(58) $(4x^{-1})^{-2} = 4^{-2}x^2$

$= \boxed{\frac{x^2}{16}}$

(60) $(-3y^{-1})^{-3} = \boxed{-27y^3}$

(62) $\frac{3x^3 \cdot 5x^{14}}{20x^{14}} = \boxed{\frac{3x^3}{4}}$

(64) $(x^4)^3 \cdot x^{-5} = x^{12} \cdot x^{-5}$

$= x^7$

(66) $(3y^4)^3 y^{-7} = 27y^{12}y^{-7}$

$= \boxed{27y^5}$

(68) $\frac{(y^2)^5}{(y^3)^4} = \frac{y^{10}}{y^{12}}$

$= \frac{1}{y^2}$

(70) $(y^{20})^{-5} = y^{-100}$

$= \boxed{\frac{1}{y^{100}}}$

(72) $(a^5b^3)^{-4} = a^{-20}b^{-12}$

$= \frac{1}{a^{20}b^{12}}$

(74) $(a^{-7}b^2)^{-5} = a^{35}b^{-10}$

$= \boxed{\frac{a^{35}}{b^{10}}}$

(76) $\left(\frac{x^2}{2}\right)^{-3} = \frac{x^{-6}}{2^{-3}}$

$= \boxed{\frac{8}{x^6}}$

(78) $\left(\frac{x^3}{y^2}\right)^{-4} = \frac{x^{-12}}{y^{-8}}$

$= \frac{y^8}{x^{12}}$

(80) 2.75×10^3

$= \boxed{2750}$

(82) 7.24×10^4

$= \boxed{7240}$

(84) $9.115 \times 10^0 = 9.115$

(86) $8.6 \times 10^{-1} = 0.86$

(88) $3.14 \times 10^{-2} = 0.0314$

(90) $4.63 \times 10^{-5} = 0.0000463$

(92) $327{,}000 = 3.27 \times 10^5$

(94) $370{,}000{,}000{,}000 = 3.7 \times 10^{11}$

(96) $623 = 6.23 \times 10^2$ (98) $9832 = 9.832 \times 10^3$

(100) $0.00083 = 8.3 \times 10^{-4}$ (102) $0.00000103 = 1.03 \times 10^{-6}$

(104) $0.006 = 6 \times 10^{-3}$ (106) $2.71828 = 2.71828 \times 10^0$

(108) $(2 \times 10^3)(3 \times 10^2)$
$= 6 \times 10^5$

(110) $(4 \times 10^3)(5 \times 10^4)$
$= 20 \times 10^{12}$

(112) $\frac{20 \times 10^{20}}{10 \times 10^{10}} = 2 \times 10^{10}$ (114) $\frac{18 \times 10^2}{9 \times 10^{-3}} = 2 \times 10^5$

(116) $\frac{18 \times 10^{-2}}{9 \times 10^3} = 2 \times 10^{-5}$

(118) $\frac{180 \times 10^8}{2 \times 10^4} = 90 \times 10^4$

(120) $\frac{5 \times 10^2}{20 \times 10^{-3}} = .25 \times 10^5$
$= 2.5 \times 10^4$

(122) $(4 \times 10^3)^2 = 16 \times 10^6$
$= 1.6 \times 10^5$

(124) $(2 \times 10^{-3})^5 = 2^5 \times 10^{-15}$
$= 32 \times 10^{-15}$
$= 3.2 \times 10^{-14}$

(126) $(5 \times 10^4)^{-1} = 5^{-1} \times 10^{-4}$
$= .20 \times 10^{-4}$
$= 2.0 \times 10^{-5}$