INDICES

RULES: Instead of the usual algebraic rules reproduced everywhere, I'll just state them in words. For all cases the bases must be the same.

* Multiplying……Add the powers
* Dividing……..Subtract the powers
* A power raised by a power……Multiply the powers
* Anything to the power zero equals one.
* Negative powers become positive when moved from top to bottom of a fraction.

Now try these

$a^3 \times a^2$	$T^4 \times T^{-2}$	$b^{-3} \times b^{-2}$	$a^3 \times a^2 \times a^{-5}$	$d^3 \times a^2 \times d^4$
$\frac{s^9}{s^3}$	$\frac{y^7}{y^2}$	$\frac{6x^7}{9x^{-2}}$	$\frac{4W^{-4}}{2W^4}$	$\frac{a^4y^6}{a^{-2}y^2}$
$(3s^3)^2$	$(a^{-4})^{-2}$	$(y^7)^{-3}$	$(s^3)^b$	$((k^2)^2)^3$
$\frac{a^{-4}y^6}{a^{-2}y^{-2}}$	$\frac{4b^4c^6}{8a^2c^2}$	$\frac{x^{-4}y^6}{a^{-2}x^{-2}}$	$(as^3)^2$	$\frac{(a^4y^6)^2}{a^{-2}y^2}$
$(3x^4)^2(x^5y^4)$	$(3x^2)(2x^3a^5)$	$\left(\frac{2a^2}{d^5}\right)^3$	$\frac{18x^{11}b^3}{6x^5b^{-2}}$	$\frac{(4h^3)^2(-2g^3h)^3}{2h^2g^{-5}}$

SOLUTIONS

a^5	T^2	b^{-5} $\frac{1}{b^5}$	1	$a^2\,d^7$
s^6	y^5	$\frac{2}{3}x^9$ $\frac{2x^9}{3}$	$2W^{-8}$	a^6y^4
$9s^6$	a^8	y^{-21} $\frac{1}{y^{21}}$	s^{3b}	k^{12}
$a^{-2}y^8$ OR $\frac{y^8}{a^2}$	$\frac{b^4c^4}{2a^2}$	$\frac{x^{-6}y^6}{a^{-2}}$ OR $\frac{y^6a^2}{x^6}$	a^2s^6	$a^{10}y^{10}$ OR $(ay)^{10}$
$9x^{13}y^4$	$6x^5a^5$ $6(xa)^5$	$\frac{8a^6}{d^{15}}$	$3x^6b^5$	$-32g^{14}h^7$