Exponent problems

1. $x^6x^7 = x^{13}$
2. $\frac{y^9}{y^4} = y^5$
3. $(3y)^2 = 9y^2$
4. $(5^{15}5^7)^0 = 1$
5. $\left(\frac{x}{4}\right)^5 = \frac{x^5}{4^5}$
6. $(y^{10})^{20} = y^{200}$
7. $x^{12} \cdot x^3 \cdot x^2 = x^{17}$
8. $(4y^2)^2 = 16y^4$
9. $\left(\frac{x^{14}}{x^{12}}\right)^4 = x^8$
10. $\frac{x^5y^{12}}{y^9x^3} = x^2y^3$
11. $y^{10} \div y^3 = y^7$
12. $x^8 \times y^8 = (xy)^8$
13. $y^8 \times y^6 \times y^6 \div y^{15} = y^5$
14. $((x^{10})^{10})^{10} = x^{1000}$
15. $\frac{4^3 \times y^3}{2^3} = 8y^3$

1. $a^2a^5 = a^7$
2. $\frac{b^7}{b^4} = b^3$
3. $(2a)^2 = 4a^2$
4. $(2^3b^7)^0 = 1$
5. $\left(\frac{3}{a}\right)^4 = \frac{3^4}{a^4}$
6. $(b^2)^3 = b^6$
7. $a^2 \cdot a^4 \cdot a^{20} = a^{26}$
8. $(3b^2)^2 = 9b^4$
9. $\left(\frac{a^{12}}{a^8}\right)^2 = a^8$
10. $\frac{a^5b^{10}}{a^3b^8} = a^2b^2$
11. $b^6 \div b^4 = b^2$
12. $(2a)^5 \times 3^5 = (6a)^5$
13. $b^4 \times b^5 \times b^6 \div b^{14} = b^1$
14. $((a^4)^5)^2 = a^{40}$
15. $\frac{9^2 \times a^2}{3^2} = 9a^2$

x^{13}	y^5	$9y^2$
1	$\frac{x^5}{4^5}$	y^{200}
x^{17}	$16y^4$	x^8
x^2y^3	y^7	$(xy)^8$
y^5	x^{1000}	$8y^4$

x^6x^7	$\frac{y^9}{y^4}$	$(3y)^2$
$(5^{15}5^7)^0$	$\left(\frac{x}{4}\right)^5$	$(y^{10})^{20}$
$x^{12} \cdot x^3 \cdot x^2$	$(4y^2)^2$	$\left(\frac{x^{14}}{x^{12}}\right)^4$
$\frac{x^5y^{12}}{y^9x^3}$	$y^{10} \div y^3$	$x^8 \times y^8$
$y^8 \cdot y^6 \cdot y^6 \div y^{15}$	$((x^{10})^{10})^{10}$	$\frac{4^3 \times y^3}{2^3}$

a^7	b^3	$4a^2$
1	$\frac{3^4}{a^4}$	b^6
a^{26}	$9b^4$	a^8
a^2b^2	b^2	$(6a)^5$
b^1	a^{40}	$9a^2$

a^2a^5	$\frac{b^7}{b^4}$	$(2a)^2$
$(2^3b^7)^0$	$\left(\frac{3}{a}\right)^4$	$(b^2)^3$
$a^2 \cdot a^4 \cdot a^{20}$	$(3b^2)^2$	$\left(\frac{a^{12}}{a^8}\right)^2$
$\frac{a^5b^{10}}{a^3b^8}$	$b^6 \div b^4$	$(2a)^5 \times 3^5$
$b^4 \cdot b^5 \cdot b^6 \div b^{14}$	$((a^4)^5)^2$	$\frac{9^2 \times a^2}{3^2}$