Brilliance Tuition Centre, Redbank Plains

MATHS WORKSHEETS- INDICES- INDEX LAWS- REVISION

Simplify the following. (Note: $a^1 = a$, Note: $a^0 = 1, where\ a \neq 0$)

1	$2^8 \times 2^5 =$	
2	$5^{12} \times 5^2 =$	
3	$7^8 \times 7^4 =$	
4	$6^8 \times 6 =$	
5	$(2^3)^2 \times 2^4 =$	
6	$(8^5)^3 \times (8^4)^2 =$	
7	$4a^0 \times (6a)^0 =$	
8	$2^5 4^7 \times 2^3 4^4 =$	
9	$6^5 2^7 \times 6^2 2^2 =$	
10	$12a^0 \times 2a^0 =$	
11	$(7a)^0 \times 7a^0 =$	
12	$8a^0 \times 4b^0 =$	
13	$3^{10} 4^9 \times 3^3 4^4 =$	
14	$(3^4)^3 \times (3^4)^2 =$	
15	$(6a)^0 \times 6a^0 =$	
16	$2^{20} \times 2^{10} =$	
17	$9^5 2^7 \times 9^3 2^2 =$	
18	$(216^2)^3 =$	
19	$(9^4)^6 =$	
20	$3^6 \times ____ = 3^{11}$	

21	$2^8 \div 2^5 =$	
22	$5^{12} \div 5^2 =$	
23	$7^8 \div 7^4 =$	
24	$6^8 \div 6 =$	
25	$(2^3)^2 \div 2^4 =$	
26	$(8^5)^3 \div (8^4)^2 =$	
27	$4a^0 \div (6a)^0 =$	
28	$2^5 4^7 \div 2^3 4^4 =$	
29	$6^5 2^7 \div 6^2 2^2 =$	
30	$12a^0 \div 2a^0 =$	
31	$(7a)^0 \div 7a^0 =$	
32	$8a^0 \div 4b^0 =$	
33	$3^{10} 4^9 \div 3^3 4^4 =$	
34	$(3^4)^3 \div (3^4)^2 =$	
35	$(6a)^0 \div 6a^0 =$	
36	$2^{20} \div 2^{10} =$	
37	$9^5 2^7 \div 9^3 2^2 =$	
38	$(1.5)^3 =$	
39	$4^5 \div 4^3 =$	
40	$3^6 \div ____ = 3^2$	

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Answer Key:

1	2^{13}
2	5^{14}
3	7^{12}
4	6^{9}
5	2^{10}
6	8^{23}
7	4
8	$2^{8}4^{11}$
9	$6^{7}2^{9}$
10	24
11	7
12	32
13	$3^{13}4^{13}$
14	3^{20}
15	6
16	2^{30}
17	$9^{8}2^{9}$
18	6^{18}
19	3^{48}
20	3^{5}

21	2^{3}
22	5^{10}
23	7^{4}
24	6^{7}
25	2^{2}
26	8^{7}
27	4
28	$2^{2}4^{3}$
29	$6^{3}2^{5}$
30	6
31	1/7
32	2
33	$3^{7}4^{5}$
34	3^{4}
35	1/6
36	2^{10}
37	$9^{2}2^{5}$
38	3.375
39	4^{2}
40	3^{4}