Rewriting Using the Laws of Exponents Name:

Use the law of exponents to rewrite each problem.

1) $(8 \times 6)^3 =$ _____

2) $(6^3)^6 =$ _____

3) $(\frac{1}{5})^8 =$ _____

4) $5^1 =$ _____

5) $3^1 =$ _____

6) $4^9 \times 4^9 =$ _____

7) $2^0 =$ _____

8) $(6^6)^7 =$ _____

9) $(7 \times 6)^6 =$ _____

10) $8^8 \times 8^4 =$ _____

11) $2^0 =$ _____

12) $(\frac{1}{5})^9 =$ _____

13) $3^5 \times 3^{-3} =$ _____

14) $9^{-9} =$ _____

15) $(8^8)^8 =$ _____

16) $7^7 \times 7^{-8} =$ _____

17) $4^{-2} =$ _____

18) $(3 \times 7)^8 =$ _____

19) $6^1 =$ _____

20) $2^0 =$ _____

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0

Rewriting Using the Laws of Exponents

Name: **Answer Key**

Use the law of exponents to rewrite each problem.

1) $(8 \times 6)^3 =$ $8^3 \times 6^3$

2) $(6^3)^6 =$ 6^{18}

3) $(1/5)^8 =$ $1/5^8$

4) $5^1 =$ 5

5) $3^1 =$ 3

6) $4^9 \times 4^9 =$ 4^{18}

7) $2^0 =$ 1

8) $(6^6)^7 =$ 6^{42}

9) $(7 \times 6)^6 =$ $7^6 \times 6^6$

10) $8^8 \times 8^4 =$ 8^{12}

11) $2^0 =$ 1

12) $(1/5)^9 =$ $1/5^9$

13) $3^5 \times 3^{-3} =$ 3^2

14) $9^{-9} =$ $1/9^9$

15) $(8^8)^8 =$ 8^{64}

16) $7^7 \times 7^{-8} =$ 7^{-1}

17) $4^{-2} =$ $1/4^2$

18) $(3 \times 7)^8 =$ $3^8 \times 7^8$

19) $6^1 =$ 6

20) $2^0 =$ 1

Answers

1. $8^3 \times 6^3$
2. 6^{18}
3. $1/5^8$
4. 5
5. 3
6. 4^{18}
7. 1
8. 6^{42}
9. $7^6 \times 6^6$
10. 8^{12}
11. 1
12. $1/5^9$
13. 3^2
14. $1/9^9$
15. 8^{64}
16. 7^{-1}
17. $1/4^2$
18. $3^8 \times 7^8$
19. 6
20. 1

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0