



Use the law of exponents to rewrite each problem.

1)  $(3 \times 2)^3 =$  \_\_\_\_\_

2)  $7^1 =$  \_\_\_\_\_

3)  $(8 \times 9)^5 =$  \_\_\_\_\_

4)  $5^8 \times 5^{-7} =$  \_\_\_\_\_

5)  $3^1 =$  \_\_\_\_\_

6)  $3^6 \times 3^9 =$  \_\_\_\_\_

7)  $(7^2)^7 =$  \_\_\_\_\_

8)  $(\frac{1}{3})^6 =$  \_\_\_\_\_

9)  $3^{-5} =$  \_\_\_\_\_

10)  $7^1 =$  \_\_\_\_\_

11)  $9^0 =$  \_\_\_\_\_

12)  $6^0 =$  \_\_\_\_\_

13)  $(\frac{1}{3})^3 =$  \_\_\_\_\_

14)  $(8 \times 9)^5 =$  \_\_\_\_\_

15)  $(5^2)^4 =$  \_\_\_\_\_

16)  $(5^3)^2 =$  \_\_\_\_\_

17)  $6^2 \times 6^{-9} =$  \_\_\_\_\_

18)  $5^7 \times 5^9 =$  \_\_\_\_\_

19)  $9^{-8} =$  \_\_\_\_\_

20)  $8^9 \times 8^8 =$  \_\_\_\_\_

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

20. \_\_\_\_\_



Use the law of exponents to rewrite each problem.

1)  $(3 \times 2)^3 = \underline{3^3 \times 2^3}$

2)  $7^1 = \underline{7}$

3)  $(8 \times 9)^5 = \underline{8^5 \times 9^5}$

4)  $5^8 \times 5^{-7} = \underline{5^1}$

5)  $3^1 = \underline{3}$

6)  $3^6 \times 3^9 = \underline{3^{15}}$

7)  $(7^2)^7 = \underline{7^{14}}$

8)  $(\frac{1}{3})^6 = \underline{\frac{1}{3^6}}$

9)  $3^{-5} = \underline{\frac{1}{3^5}}$

10)  $7^1 = \underline{7}$

11)  $9^0 = \underline{1}$

12)  $6^0 = \underline{1}$

13)  $(\frac{1}{3})^3 = \underline{\frac{1}{3^3}}$

14)  $(8 \times 9)^5 = \underline{8^5 \times 9^5}$

15)  $(5^2)^4 = \underline{5^8}$

16)  $(5^3)^2 = \underline{5^6}$

17)  $6^2 \times 6^{-9} = \underline{6^{-7}}$

18)  $5^7 \times 5^9 = \underline{5^{16}}$

19)  $9^{-8} = \underline{\frac{1}{9^8}}$

20)  $8^9 \times 8^8 = \underline{8^{17}}$

Answers

1.  $\underline{3^3 \times 2^3}$

2.  $\underline{7}$

3.  $\underline{8^5 \times 9^5}$

4.  $\underline{5^1}$

5.  $\underline{3}$

6.  $\underline{3^{15}}$

7.  $\underline{7^{14}}$

8.  $\underline{\frac{1}{3^6}}$

9.  $\underline{\frac{1}{3^5}}$

10.  $\underline{7}$

11.  $\underline{1}$

12.  $\underline{1}$

13.  $\underline{\frac{1}{3^3}}$

14.  $\underline{8^5 \times 9^5}$

15.  $\underline{5^8}$

16.  $\underline{5^6}$

17.  $\underline{6^{-7}}$

18.  $\underline{5^{16}}$

19.  $\underline{\frac{1}{9^8}}$

20.  $\underline{8^{17}}$