

Arithmetic - Powers/Exponents - Answers

Powers as multiplication - Ex1

The examples below are intended to be used as exercises in mental arithmetic and the student should *not* make use of a calculator or other aid. This exercise incorporates only positive small numbers. The exercise is NOT to evaluate the products written, but to create the equivalent exponent expression. Note that some of the examples have more than one valid answer! Try to find them all.

1. 2×2 2^2

11. 5×5 5^2

2. 4×4 $4^2, 2^4$

12. 6×6 6^2 (2^23^2)

3. 7×7 7^2

13. 8×8 $8^2, 4^4, 2^6$

4. 3×3 3^2

14. 14×14 14^2 (2^27^2)

5. 9×9 $9^2, 3^4$

15. 15×15 15^2 (3^25^2)

6. 11×11 11^2

16. 18×18 18^2 (2^23^4)

7. 10×10 10^2 (2^25^2)

17. 17×17 17^2

8. 13×13 13^2

18. 20×20 20^2 (2^45^2)

9. 19×19 19^2

19. 16×16 $16^2, 4^4, 2^8$

10. 12×12 12^2 (2^43^2)

20. 19×19 19^2