Grade 8 Exponents Worksheet

Name: _____ Date: _____ Score: _____

Evaluate each exponent. Write your answer on the line.

1. Evaluate: 5^4

   _____

2. Evaluate: 2^3

   _____

3. What is the exponent when 4,000,000 is written in scientific notation (4 × 10^?)?

   _____

4. What is the exponent when 7,000,000 is written in scientific notation (7 × 10^?)?

   _____

5. Evaluate: 4^4

   _____

6. What is the exponent when 5,000 is written in scientific notation (5 × 10^?)?

   _____

7. Evaluate: 4^2

   _____

8. Write in standard form: 2 × 10^5

   _____

9. Write in standard form: 1 × 10^8

   _____

10. Write in standard form: 9 × 10^3

    _____

11. Write in standard form: 6 × 10^8

    _____

12. Write in standard form: 5 × 10^3

    _____

13. What is the exponent when 900,000 is written in scientific notation (9 × 10^?)?

    _____

14. Evaluate: 3^4

    _____

15. What is the exponent when 2,000 is written in scientific notation (2 × 10^?)?

    _____

16. Evaluate: 2^4

    _____

17. Write in standard form: 1 × 10^5

    _____

18. Evaluate: 5^2

    _____

19. Write in standard form: 7 × 10^4

    _____

20. Evaluate: 3^3

    _____

21. Write in standard form: 8 × 10^5

_____

22. Write in standard form: 9 × 10^5

_____

23. Evaluate: 4^3

_____

24. Evaluate: 3^2

_____

25. Write in standard form: 9 × 10^4

_____

26. Evaluate: 2^2

_____

27. Write in standard form: 4 × 10^3

_____

28. Write in standard form: 7 × 10^7

_____

29. Write in standard form: 8 × 10^6

_____

30. Write in standard form: 4 × 10^7

_____

31. Write in standard form: 6 × 10^3

_____

32. What is the exponent when 8,000,000 is written in scientific notation (8 × 10^?)?

_____

33. What is the exponent when 500,000 is written in scientific notation (5 × 10^?)?

_____

34. Write in standard form: 2 × 10^4

_____

35. Evaluate: 5^3

_____

36. What is the exponent when 600,000 is written in scientific notation (6 × 10^?)?

_____

37. What is the exponent when 9,000 is written in scientific notation (9 × 10^?)?

_____

38. What is the exponent when 80,000 is written in scientific notation (8 × 10^?)?

_____

39. Write in standard form: 3 × 10^7

_____

40. What is the exponent when 30,000 is written in scientific notation (3 × 10^?)?

_____

ANSWER KEY

Grade 8 Exponents Worksheet

1. Evaluate: 5^4
   625
2. Evaluate: 2^3
   8
3. What is the exponent when 4,000,000 is written in scientific notation (4 × 10^?)?
   6
4. What is the exponent when 7,000,000 is written in scientific notation (7 × 10^?)?
   6
5. Evaluate: 4^4
   256
6. What is the exponent when 5,000 is written in scientific notation (5 × 10^?)?
   3
7. Evaluate: 4^2
   16
8. Write in standard form: 2 × 10^5
   200000
9. Write in standard form: 1 × 10^8
   100000000
10. Write in standard form: 9 × 10^3
    9000
11. Write in standard form: 6 × 10^8
    600000000
12. Write in standard form: 5 × 10^3
    5000
13. What is the exponent when 900,000 is written in scientific notation (9 × 10^?)?
    5
14. Evaluate: 3^4
    81
15. What is the exponent when 2,000 is written in scientific notation (2 × 10^?)?
    3
16. Evaluate: 2^4
    16
17. Write in standard form: 1 × 10^5
    100000
18. Evaluate: 5^2
    25
19. Write in standard form: 7 × 10^4
    70000
20. Evaluate: 3^3
    27

21. Write in standard form: 8 × 10^5
800000

22. Write in standard form: 9 × 10^5
900000

23. Evaluate: 4^3
64

24. Evaluate: 3^2
9

25. Write in standard form: 9 × 10^4
90000

26. Evaluate: 2^2
4

27. Write in standard form: 4 × 10^3
4000

28. Write in standard form: 7 × 10^7
70000000

29. Write in standard form: 8 × 10^6
8000000

30. Write in standard form: 4 × 10^7
40000000

31. Write in standard form: 6 × 10^3
6000

32. What is the exponent when 8,000,000 is written in scientific notation (8 × 10^?)?
6

33. What is the exponent when 500,000 is written in scientific notation (5 × 10^?)?
5

34. Write in standard form: 2 × 10^4
20000

35. Evaluate: 5^3
125

36. What is the exponent when 600,000 is written in scientific notation (6 × 10^?)?
5

37. What is the exponent when 9,000 is written in scientific notation (9 × 10^?)?
3

38. What is the exponent when 80,000 is written in scientific notation (8 × 10^?)?
4

39. Write in standard form: 3 × 10^7
30000000

40. What is the exponent when 30,000 is written in scientific notation (3 × 10^?)?
4