Exponents Worksheet – 2

1. 9 is a rational number. What is the exponent here?

a) 0 b) 1

c) 2 d) -1

2. If $(–8)^5$ is the expression, then what is the base and exponent?

a) Base = 8 and Exponent = 5

b) Base = 5 and Exponent = 8

c) Base = –8 and Exponent = 5

d) None of these

3. If the base is $\frac{-3}{5}$ and exponent is 3, then what is the exponential expression?

a) $(\frac{3}{5})^3$ b) $(\frac{-3}{5})^3$

c) $(\frac{5}{3})^3$ d) None of these

4. $(p^3q^5)^2$ = _____.

a) p^3q^5 b) p^5q^7

c) p^6q^7 d) p^6q^{10}

5. $(2^2)^3$ = _____.

a) 32 b) 46

c) 64 d) 128

6. $(100^0)^3$ = _____.

a) 1 b) 0

c) 2 d) 100

7. $(5^5)^0 – (8^0)^4$ = _____.

a) 1 b) –3

c) 0 d) None of these

8. $(–5)^2$ x $(–1)^{99}$ = _____.

a) 25 b) – 25

c) 50 d) None of these

9. $(-4)^7 \div (-4)^5$ = _____.

a) 4 b) 8

c) 16 d) –16

10. 9 x 9 x 9 x 5 x 5 x 5 x 5 = _____.

a) $9^2 5^3$ b) $9^3 5^4$

c) $9^3 5^3$ d) None of these

11. If $(-2)^n = 256$, then what is the value of 'n'?

a) 5 b) 6

c) 7 d) 8

12. Find the value of $(5^{-1} - 6^{-1})^{-1}$.

a) 30 b) $\frac{1}{30}$

c) $\frac{-1}{30}$ d) None of these

13. $(2^5)^3 \div 2^{10}$ = _____.

a) 32 b) 8

c) 16 d) 4

14. $(5^2)^4 \times (5^3)^4$ = _____.

a) 5^8 b) 5^{12}

c) 5^{20} d) None of these

15. $(5^0 + 5^0) \times 10^2$ = _____.

a) 100 b) 200

c) 300 d) 400

16. $\{(5^2)^3 \div 5^2\} \times 5^5$ = _____.

a) 5^5 b) 5^4

c) 5^9 d) None of these

17. $\{(3^5)^2 \times 5^3\} \div (9^3 \times 5) =$ _____.

a) 2052 b) 2025

c) 2252 d) None of these

18. $(3^6 \times 10^4 \times 5^2) \div (3^3 \times 2^4 \times 5^5) =$ _____.

a) 135 b) 153

c) 513 d) None of these

19. By what number should we multiply 5^5 so that the product is 5^9.

a) 5^5 b) 5^3

c) 5^2 d) 5^4

20. By what number should we multiply $(-5)^{-1}$ so that the product will be 10^{-2}.

a) 10 b) $\frac{-1}{20}$

c) 20 d) None of these