

Exponents Worksheet – 3

1. Find the value of 5^4 ?

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|-------|--------|
| a) 25 | b) 125 |
| c) 50 | d) 625 |

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

- a) Base = $\frac{5}{3}$ and Exponent = 5
- b) Base = $\frac{-3}{5}$ and Exponent = 8
- c) Base = $\frac{-3}{5}$ and Exponent = 5
- d) None of these

3. $(\frac{3}{5})^3 = \underline{\hspace{2cm}}$.

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|--------------------|---------------------|
| a) $\frac{27}{25}$ | b) $\frac{27}{125}$ |
| c) $\frac{27}{50}$ | d) None of these |

4. $128 = \underline{\hspace{2cm}}$.

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| a) 2^3 | b) 2^4 |
| c) 2^6 | d) 2^7 |

5. $(6^2)^3 = (2^6 \times 3^5)$, mark True / False.

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| a) True | b) False |
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6. $(2^0 + 3^0)^2 \times (5^0 + 7^0)^3 = \underline{\hspace{2cm}}$.

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| a) 8 | b) 16 |
| c) 32 | d) 64 |

7. $(4^0 + 5^0)^2 \div (7^0 + 8^0)^3 = \underline{\hspace{2cm}}$.

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|---------------|------------------|
| a) 1 | b) -1 |
| c) $(2)^{-1}$ | d) None of these |

8. $(p^3 \times p^5) \div (p^2)^3 = \underline{\hspace{2cm}}$.

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| a) p^2 | b) p^3 |
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c) p^4 d) None of these

9. $(5^2)^5 \times (5^4)^6 = \underline{\hspace{2cm}}$.

- a) 5^{24} b) 5^{34}
c) 5^{14} d) None of these

10. $(3 \times 5^2 \times 9^7) \div (15 \times 9^3) = \underline{\hspace{2cm}}$.

- a) $5^2 9^3$ b) $5^3 9^4$
c) $5^3 9^3$ d) $5^1 9^4$

11. $\left(\frac{1}{25}\right)^{18} \div \left(\frac{1}{25}\right)^{23} = \underline{\hspace{2cm}}$.

- a) $\left(\frac{1}{25}\right)^7$ b) $\left(\frac{1}{25}\right)^6$
c) $\left(\frac{1}{25}\right)^5$ d) 5^{10}

12. $(10^5 \times 15^4) \div (2^2 \times 3 \times 5^4 \times 6^3) = \underline{\hspace{2cm}}$.

- a) 2^5 b) 5^5
c) 5^3 d) 5^{-3}

13. Any number to the power is zero is equal to $\underline{\hspace{2cm}}$.

- a) 0 b) -1
c) 1 d) None of these

14. The reciprocal of 5^4 is zero is equal to $\underline{\hspace{2cm}}$.

- a) 5^{-4} b) 5^4
c) 1 d) None of these

15. 175 km = $\underline{\hspace{2cm}}$ meter.

- a) 1.75×10^3 b) 1.75×10^4
c) 1.75×10^5 d) None of these

16. 25 litre = $\underline{\hspace{2cm}}$ ml.

- a) 0.25×10^5 b) 2.5×10^4
c) 25×10^5 d) Both A & B

17. $225 \text{ km} = \underline{\hspace{2cm}} \text{ cm}.$

a) 225×10^7

b) 22.5×10^7

c) 2.25×10^7

d) None of these

18. $(3^6 \times 10^4 \times 5^2) \div (3^3 \times 2^4 \times 5^5) = \underline{\hspace{2cm}}.$

a) 135

b) 153

c) 513

d) None of these

19. $7 \times 10^5 + 6 \times 10^3 + 2 \times 10^2 + 5 \times 10^0 = \underline{\hspace{2cm}}.$

a) 706025

b) 76205

c) 706205

d) None of these

20. $5006285 = \underline{\hspace{2cm}}.$

a) $5 \times 10^5 + 6 \times 10^3 + 2 \times 10^2 + 8 \times 10^1 + 5 \times 10^0$

b) $5 \times 10^6 + 6 \times 10^3 + 2 \times 10^2 + 8 \times 10^1 + 5 \times 10^0$

c) $5 \times 10^7 + 6 \times 10^3 + 2 \times 10^2 + 8 \times 10^1 + 5 \times 10^0$

d) $5 \times 10^6 + 6 \times 10^4 + 2 \times 10^2 + 8 \times 10^1 + 5 \times 10^0$