

QT Indices



1. Simplify $x^5 \times x^4$

(1 mark)

2. Simplify $y^7 \times y^2$

(1 mark)

3. Simplify $z^2 \times z^6$

(1 mark)

4. Simplify $a^4 \times a^4$

(1 mark)

5. Simplify $x^8 \div x^4$

(1 mark)

6. Simplify $y^7 \div y^2$

(1 mark)

7. Simplify $z^6 \div z^5$

(1 mark)

8. Simplify $a^4 \div a^4$

(1 mark)

9. Simplify $(3x)^3$

(1 mark)

10. Simplify $(4a)^2$

(1 mark)

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11. Simplify $(5b)^3$

(1 mark)

12. Simplify $(3c)^4$

(1 mark)

13. Simplify $(4bd)^3$

(2 marks)

14. Simplify $(3x^2y)^3$

(2 marks)

15. Simplify $(2a^3b^2)^3$

(2 marks)

16. Simplify $(3^3)^3$

(2 marks)

17. Simplify $2x^2 \times 5y^4$

(2 marks)

18. Simplify $3a^3 \times 7b^5$

(2 marks)

19. Simplify $4c^5 \times 4c^5$

(2 marks)

20. Simplify $25x^4 \div 5x^2$

(2 marks)

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21. Simplify $15m^4 \div 3n^4$

(2 marks)

22. $100^x = 1$ Write down the value of x .

(1 mark)

23. Write $4^3 \times 4^2$ as a power of 4.

(1 mark)

24. Write $\frac{4^3 \times 4^6}{4^2}$ as a power of 4

(2 marks)

25. Work out the value of $\frac{3^6 \times 3^{-2}}{3^4}$

(2 marks)

26. Simplify $\frac{16a^8b^3}{4a^3b}$

(2 marks)

27. Simplify $\frac{12x^2y^6}{3xy^4}$

(2 marks)

28. Work out the value of $(2^2)^3$

(2 marks)

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29. Write the value of 5^{-3}

(2 marks)

30. Write the value of 4^{-2}

(2 marks)

31. Write the value of 6^{-3}

(2 marks)

32. Write the value of $4^2 \times 2^3$

(2 marks)

33. $5^4 \times 5^x = 5^{12}$ Find the value of x .

(1 mark)

34. $6^9 \div 6^x = 6^2$ Find the value of x .

(1 mark)

35. $\frac{4^9 \times 4^5}{4^3} = 4^x \times 4^4$ Find the value of x .

(2 marks)

Total / 54 marks