IQ AND REASONING ACADEMY
Making kids smart thinkers

Year 7 Maths Jump Practice Worksheet

30 questions on the five topics that change most from Year 6 to Year 7 · answers at the back

> Show your working for every question. In secondary school, the method matters as much as the answer. No calculator.

1. Negative numbers

1. -4×-3

2. $-24 \div 6$

3. $-7 + (-5)$

4. $3 - (-8)$

5. $(-2)^3$

6. At night the temperature is −6 °C. It rises by 9 °C, then falls by 5 °C. What is the final temperature?

2. Fractions

7. $\frac{3}{4} + \frac{2}{3}$

8. $2\frac{1}{2} - 1\frac{3}{4}$

9. $\frac{2}{5} \times \frac{15}{8}$

10. $\frac{3}{4} \div \frac{3}{8}$

11. $1\frac{1}{3} \times 2\frac{1}{4}$

12. Find $\frac{5}{6}$ of 42

3. Algebra

13. Simplify 3a + 5b − a + 2b

14. Expand 4(2x − 3)

15. Solve 3x + 5 = 20

16. Solve 2(x + 4) = 22

17. Find 5p − 2q when p = 3 and q = −4

18. Factorise 6y + 9

4. Percentages and ratio

19. Increase £60 by 15%

20. A jacket costs £80 and is reduced by 35%. What is the sale price?

21. Share £56 in the ratio 3 : 5

22. Write 18 : 24 in its simplest form

23. 4 pens cost £3.60. How much do 7 pens cost?

24. A price rises from £40 to £50. What is the percentage increase?

5. Powers, roots and order of operations

25. $3 + 4 \times 2$

26. $(3 + 4) \times 2$

27. $5^2 - 3^3$

28. $\sqrt{81} + \sqrt{16}$

29. $20 - 18 \div (2 + 1)^2$

30. Which is bigger, 2^5 or 5^2? By how much?

Answers

1. Negative numbers

1. 12
2. −4
3. −12
4. 11
5. −8
6. −2 °C

2. Fractions

7. 17/12 = 1 5/12
8. 3/4
9. 3/4
10. 2
11. 3
12. 35

3. Algebra

13. 2a + 7b
14. 8x − 12
15. x = 5
16. x = 7
17. 23
18. 3(2y + 3)

4. Percentages and ratio

19. £69
20. £52
21. £21 and £35
22. 3 : 4
23. £6.30
24. 25%

5. Powers, roots and order of operations

25. 11
26. 14
27. −2
28. 13
29. 18
30. 2^5 (32 is 7 more than 25)

Ready for Year 7 maths?

Our year-long Year 7 Maths programme covers the syllabus topic by topic, with one dedicated teacher, building the foundations for GCSE.

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