




Acumen Teach  
To the point

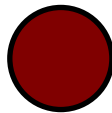
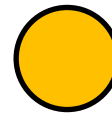
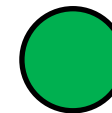
# Number Master-box

Number Basics—Algebra—Logic—Statistics



 2 hours

 38 Questions

Easy (12 Questions)	/21
Moderate(12 Questions)	/25
Difficult(12 Questions)	/31
<b>Total Marks</b>	<b>/77</b>
How did you do?	  



# Easy Questions

1. Simplify the following expression:  $7 \times 8 + 15 - 9$

(2 marks)

2. Solve for  $x$ :  $5x - 12 = 23$

(3 marks)

3. Evaluate:  $3(4 + 5) - 6$

(2 marks)



4. Calculate:  $-8+15$

(1 marks)

5. What is the result of  $-4*-5$

(1 marks)

6. Simplify:  $(-3)^2 - 7$

(2 marks)

7. If you buy 3 pens at £1.20 each and 2 notebooks at £2.50 each, what is the total cost?

(2 marks)

8. You have £50. You spend £15.75 on a book and £22.30 on groceries. How much do you have left?

(2 marks)



9. A shirt is priced at £25. If there is a 20% discount, how much will the shirt cost?

(2 marks)

10. What is the value of  $4^3$

(1 marks)

11. Find the HCF (Highest Common Factor) of 24 and 36.

(2 marks)

12. Express 0.75 as a fraction in its simplest form.

(1 marks)



# Moderate Questions

13. Solve for  $x$ :  $3(x-5)=2x+6$

(3 marks)

14. Simplify:  $2 \times 3^2 - (4+5)$

(2 marks)

15. Calculate:  $-24/6$

(1 marks)

16. Simplify:  $(-18+6 \times 3)/3$

(2 marks)



17. You have £100. You spend £30.25 on shoes and £45.50 on a jacket. How much do you have left?

(2 marks)

18. Find the total cost if you buy 4 apples at £0.80 each and 3 oranges at £1.20 each.

(2 marks)

19. Evaluate:  $(-4)^2 + (-3)^3$

(3 marks)

20. Find the LCM of 15 and 20.

(2 marks)

21. Simplify:  $(2x^2 - 3x + 4) - (x^2 + x - 2)$

(3 marks)



22. Solve:  $\frac{2}{5} = \frac{x}{10}$

(2 marks)

23. Convert 3.5 kg to grams.

(1 marks)

24. How many ways can you arrange the letters in the word "*NOUN*"?

(2 marks)



# Difficult Questions

25. Solve for  $x$ :  $2x^2 - 3x - 2 = 0$

(4 marks)

26. Evaluate:  $3 \times (2^3 - 4) / 5 - 3$

(3 marks)

27. Simplify:  $(-6)2 - 4 \times (-3) / 5 - (-1)$

(3 marks)





**28. Solve:**  $2(x+4)-3(x-2)=5$

(3 marks)

**29. Calculate the total cost if you buy 5 books at £4.25 each, with a discount of 15%.**

**30. Find the HCF of 48 and 180.**

(2 marks)

**31. Simplify:**  $(4x^3)-(2x^2)+(6x/2x)$

(3 marks)



**32. Solve:  $\sqrt{3x + 4} = 7$**

(3 marks)

**33. Convert 7.25% to a fraction in its simplest form.**

(2 marks)

**34. A box contains 6 red balls, 4 blue balls, and 5 green balls. What is the probability of drawing a red or a blue ball?**

(3 marks)

**35. How many ways can you arrange the letters in the word “ALGEBRA”? (considering repeated letters)**

(3 marks)

**36. Find the cube root of 512**

(2 marks)