

MATHEMATICS

1. Write six million four hundred and twelve thousand and one in figures.

- A. 641201                      B. 6412001  
C. 64121                        D. 64120001

2. Which one of the following numbers is divisible by 8?

- A. 69048                        B. 46201  
C. 30422                        D. 94623

3. Round off to the nearest thousand 75213.

- A. 70000                        B. 76000  
C. 75000                        D. 75200

4. What number comes just after 699,999?

- A. 690,000                      B. 700,000  
C. 699,000                      D. 70,000

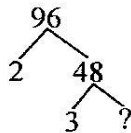
5. What is the prime product of 72?

- A.  $8 \times 9$                         B.  $2 \times 2 \times 2 \times 9$   
C.  $3 \times 3 \times 2 \times 4$             D.  $2 \times 2 \times 2 \times 3 \times 3$

6. What's the of GCD of 24, 54 and 72.

- A. 72                              B. 12  
C. 6                                D. 3

7. What is the missing digit in the factor tree below?



- A. 24                              B. 12  
C. 36                              D. 16

8. What's the sum of prime numbers between 90 and 100?

- A. 97                              B. 184  
C. 279                            D. 376

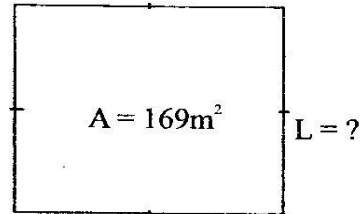
9. What is the LCM of 14, 21 and 28?

- A. 7                                B. 84  
C. 28                              D. 63

10. Simplify  $\frac{48}{112}$

- A.  $\frac{3}{7}$                                 B.  $\frac{12}{28}$   
C.  $\frac{6}{14}$                               D.  $\frac{24}{56}$

11. A square has an area of  $169m^2$ . What is its length?



- A. 64m                              B. 16m  
C. 13m                              D. 26m

12. What is the reciprocal of  $2\frac{1}{8}$ ?

- A.  $1\frac{7}{8}$                               B.  $\frac{8}{17}$   
C.  $\frac{8}{1}$                                 D.  $\frac{8}{21}$

13. Which one of the following numbers is divisible by both 3 and 9

- A. 5213                              B. 4621  
C. 4900                              D. 4563

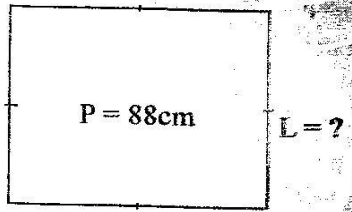
14. What is the total value of digit 3 in 43691?  
 A. 300                                      B. Three thousand  
 C. 30,000                                    D. Thousands

15. What is the square root of  $\sqrt{16}$ ?  
 A. 256                                      B. 4  
 C. 2    D. 8

16. Work out  $\frac{1}{4} \div \frac{3}{8} =$   
 A.  $\frac{3}{32}$                                       B.  $\frac{3}{12}$   
 C.  $\frac{8}{12}$                                       D.  $\frac{2}{3}$

17. Work out  $4\frac{3}{4} + 2\frac{2}{5} =$   
 A.  $6\frac{3}{4}$                                       B.  $7\frac{3}{20}$   
 C.  $6\frac{3}{20}$                                       D.  $6\frac{23}{20}$

18. A square has a perimeter of 88cm. What is its length?



- A. 22cm                                      B. 44cm  
 C. 484cm                                    D. 88cm

19. Which of the following fraction is the smallest?  $\frac{1}{2}, \frac{2}{3}, \frac{2}{5}, \frac{3}{4}$

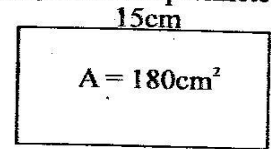
- A.  $\frac{2}{3}$     B.  $\frac{1}{2}$   
 C.  $\frac{2}{5}$     D.  $\frac{3}{4}$

20. Convert into decimal:  $\frac{3}{8}$   
 A. 3.75                                      B. 37.5  
 C. 375                                        D. 0.375

21. What is the place value of digit 7 in 6.3271?  
 A. Thousandths                            B. Hundredths  
 C. Tenths                                    D. Ten thousandths

22. What is the value of p in  $\frac{1}{3}p - 6 = 1$ ?  
 A. 7    B. 21  
 C. 3    D. 2

23. A rectangle has an area of 180cm<sup>2</sup>. If its length is 15cm, what is its perimeter?



- A. 12cm                                      B. 7cm  
 C. 54cm                                      D. 18cm

24. Simplify  $4p + 3y - 2p + 6y$   
 A.  $2p + 9y$                                 B.  $6p + 9y$   
 C.  $6p + 3y$                                 D.  $2p - 9y$

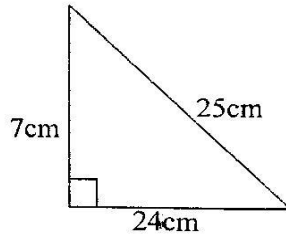
25. Convert into fraction 1.05.  
 A.  $\frac{1}{5}$     B.  $\frac{1}{20}$   
 C.  $\frac{10.5}{20}$                                       D.  $1\frac{1}{20}$

26. Convert into improper fraction  $14\frac{2}{5}$   
 A.  $\frac{14}{5}$                                         B.  $\frac{142}{5}$   
 C.  $\frac{72}{5}$                                         D.  $\frac{5}{72}$

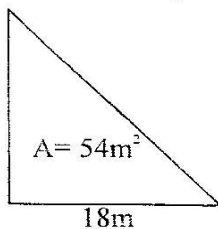
27. Convert 64000m into km.  
 A. 640km                                    B. 64km  
 C. 6.4km                                    D. 0.64km

28. What the place value of digit 2 in 9264135?  
 A. Tens  
 B. Hundred thousands  
 C. Ten thousands  
 D. Hundreds

29. What is the area of the triangle below?



- A.  $84\text{cm}^2$                       B.  $168\text{cm}^2$   
 C.  $300\text{cm}^2$                      D.  $56\text{cm}^2$
30. How many 250g packets can be packed from 8kg?  
 A. 32                                B. 16  
 C. 4                                  D. 2
31. How many ml are there in  $\frac{3}{4}$  litres?  
 A. 200ml                          B. 250ml  
 C. 750ml                          D. 550ml
32. Add  $4\frac{3}{4}\text{kg} + 6\frac{1}{2}\text{kg} =$   
 A.  $10\frac{3}{4}\text{kg}$                         B.  $10\frac{1}{2}\text{kg}$   
 C.  $11\frac{1}{2}\text{kg}$                         D.  $11\frac{1}{4}\text{kg}$
33. Njoki bought the following items from a shop.  
 2 loaves of bread for kshs. 100.00  
 3kg of rice each at shs. 70.00  
 If she gave the shopkeeper shs. 500 notes,  
 how much balance did she get?  
 A. shs. 310                        B. shs. 190  
 C. shs. 290                        D. shs. 210
34. A triangle has an area of  $54\text{m}^2$ . If its base is 18m, what is its height?

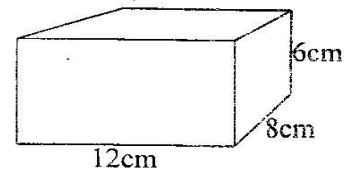


- A. 3m  
 B. 14m  
 C. 6m  
 D. 9m

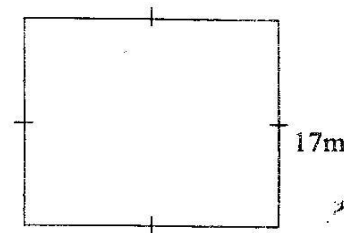
35. Convert 384 seconds into minutes and seconds.  
 A. 6mins 4 sec  
 B. 60mins 24 sec  
 C. 16mins 24sec  
 D. 6mins 24sec

36. How many days are there in 2880 mins?  
 A. 24                                B. 12  
 C. 2                                  D. 4

37. What is the volume of the cuboid below?

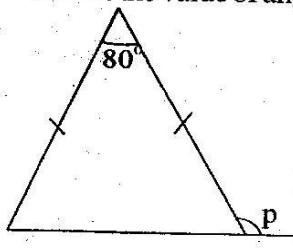


- A.  $144\text{cm}^3$                         B.  $96\text{cm}^3$   
 C.  $48\text{cm}^3$                         D.  $576\text{cm}^3$
38. What is the square of 21?  
 A. 42                                B. 441  
 C. 84                                D. 7
39. A square has side measuring 17m. What is its area?



- A.  $289\text{m}^2$                         B.  $68\text{m}^2$   
 C.  $284\text{m}^2$                         D.  $136\text{m}^2$
40. On a map 4cm represents 20m. How many cm will represent 40m?  
 A. 8cm                              B. 16cm  
 C. 4cm                              D. 12cm

41. What is the value of angle marked p?



- A.  $100^\circ$
- B.  $80^\circ$
- C.  $50^\circ$
- D.  $130^\circ$

42. Which one of the following is a property of a square.

- A. All sides are equal.
- B. Has three sides.
- C. Diagonals are not equal.
- D. Diagonals do not bisect.

43. Multiply  $4.1 \times 2.3$

- A. 943
- B. 94.3
- C. 0.943
- D. 9.43

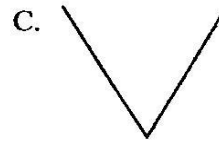
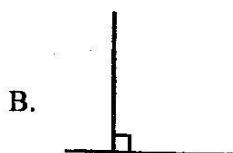
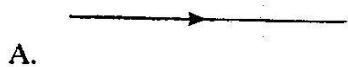
44. What number should be divided by 46 to get 0.046?

- A. 1000
- B. 100
- C. 10
- D. 0.001

45. Kamau started working at 9.30 in the morning and worked for 4 hours. What time in am/pm did he finish?

- A. 12.30p.m.
- B. 12.30a.m.
- C. 1.30p.m.
- D. 1.30a.m.

46. Which of the following lines are perpendicular?



47. What is the sum of the square of 12 and square root of 64?

- A. 152
- B. 136
- C. 20
- D. 76

48. Work out and give the reciprocal of your answer:  $\frac{2}{5} \times 1\frac{1}{4}$

- A.  $\frac{1}{2}$
- B.  $\frac{1}{4}$
- C.  $\frac{5}{20}$
- D.  $\frac{2}{1}$

49. What is the total value of digit 6 in 42.361?

- A. 0.6
- B. 6
- C. 0.06
- D. 60

50. What is the next number in the series below?

25, 36, 49, 64, 81, 100, \_\_\_\_\_

- A. 121
- B. 169
- C. 196
- D. 91