MATHEMATICS

1. What is the probability of having an odd number in a single toss of a fair die
   (a) $^1/_6$ `   (b) $^1/_3$
   (c) ½   (d) $^2/_3$

Answer A

Use the following information for question 2 and 3

The surname of 40 children in a class were arranged in alphabetical order ,

16 of the surnames begins with O and 9 of the surnames begins with A.

14 letters of the alphabet do not appear as the first letter of a surname.

2. What is the probability that the surname of a child picked **at random from** the class begins with either O and A?
   (a) $^5/_8$ (b) $^7/_8$ (c) $^9/_{16}$ (d) $^{14}/_{25}$

Answer A

3. If more than one surname begins with a letter besides A and O, how many surnames begin with the letter? (a) 2   (b) 3   (c) 4   (d) 6

The table gives the score of a group of students in an English language test.

Scores	2	3	4	5	6	7
No of Students	2	4	7	2	3	2

Answer B

4. If a student is chosen at random from the group, what is the probability that he scored at least 6 marks?
   (a)   3/20   (b)   1/5   (c)   ¼   (d)   3/10

Answer C

5. What is the probability that three customers waiting in a bank will be served in the sequence of their arrival at the bank?
   (a)   1/6   (b)   1/3   (c)   ½   (d)   2/3

Answer B

6. The probability that Kodjo and Adoga pass an examination are ¾ and 3/5 respectively. Find the probability of both boys failing the examination.
   (a)   1/10   (b)   3/10   (c)   ½   (d)   2/3

Answer A

7. The mean of 20 observations in an experiment is 4. If the observed largest value is 23, find the mean of the remaining observations.
   (a)   4   (b)   3
   (c)   2.85   (d)   2.60

Answer A

8.   A group of eleven people can speak either English or French or both. Seven can speak English and six can speak French. What is the probability that a person chosen at random can speak both English and French?

(a)   2/11   (b)   4/11   (c)   5/11   (d)   11/13

Answer B

If events X and Y are mutually exclusive, P(X) = 1/3 and P(Y) = 2/5, Use   the   information   to answer questions 9 & 10.

9.   P (X n Y) is   (a)   0   (b)   2/15   (c)   4/15   (d)   11/15

Answer A

10.   P (X u Y) is   (a)   0   (b)   2/15   (c)   4/15   (d)   11/15

Answer A

11.   A box contains 2 white and 3 blue identical marbles. If two marbles are picked at Random, one after the other, without replacement, What is the probability of picking two marbles of different colours?

(a)   2/3   (b)   3/5   (c)   2/5   (d)   7/20

Answer D

12.   Mrs. Jones is expecting a baby. The **probability that** it will be a boy is ½ and the probability that the baby will have blue eyes is ¼.   What is the probability that she will have a blue–eyed boy?

(a)   1/8   (b)   ¼   (c)   3/8   (d)   1/2

Answer B

13   Convert the speed 90 km per hour of a car to metres per second

(a)   1.5 ms^{-1} (b)   2.5 ms^{-1} (c)   25 ms^{-1} (d) 1.5 x 10^3 ms^{-1}

Answer C

14   Uche and Chidi shared a sum of money on the ratio m:n. If Chidi's share was N4,200.00, what was Uche's share?

(a)   N4,200n/m   (b)   N4,200/mn   (c)   N4,200m/n   (d)   N4,200/n

Answer C

15   A **husband contrib**utes 7% of his income into a fund and his wife contributes 4% of her income. If the husband earns N5,500 per annum (p.a) and his wife earns N4,000 p.a, find the sum of their contribution to the fund.

(a)   N1,045   (b)   N605   (c)   N545   (d)   N490

Answer C

16   A car is traveling at an average speed of 80kmh^{-1}. Its speed in metres per second (m/s) is   (a) 13.3m/s   (b)   22.2m/s   (c)   133.3m/s   (d)   222.2m/s

Answer B

17   If the children share N10.50K among themselves in the ratio 6:7:8, How much is the largest share?

(a)   N3.00   (b)   N3.50 (c)   N4.00   (d)   N4.50

Answer C

18   A trader makes a loss of 15% when selling an article. Find the ratio, selling price: cost price.

(a)   3:20   (b)   3:17   (c)   17:20   (d)   20:23

Answer C

19   A car travels at xkm per hour for 1 hour at ykm per hour for 2 hours. Find its average speed.

(a) $2x+2ykmh^{-1}/3$ (b) $x+ykmh^{-1}/3$ (c) $x+2ykmh^{-1}$ (d) $2x+ykmh^{-1}/3$

Answer C

20   The ages of three men are in the ratio 3:4:5. If the difference between the ages of the oldest and youngest is 18 years, find the sum of the ages of the three men.

(a)   45 years   (b)   72 years   (c)   108 years   (d)   216 years

Answer C

21   A bicycle wheel of radius 42cm is rolled over a distance of **66m. How man**y revolutions does it make? [Take u=22/7]

(a)   2.5   (b)   5   (c)   25   (d)   50

Answer C

22   In a bag of oranges, the ratio of the good ones to the bad ones is 5:4. If the number of bad ones in the bag is 36, how many oranges are there altogether?

(a)   81   (b)   72   (c)   54   (d)   45

Answer A

23   A man is four times as old as his son. The difference between their ages is 36. Find the sum of their ages.

(a)   45 years`   (b)   48 years   (c)   60 years   (d)   74 years

Answer C

24   If 4m+3n = 5, find the ratio m:n $\underline{4m-3n}$ $\underline{3}$

(a)   7:4   (b)4:3(c)3:4   (d) 4:7

Answer A

25   Answer B If 2x : (x+1) =3:2, what is the value of x?

(a)   ½   (b)   1   (c)   1½   (d)   3

Answer D

26   The ratio of the number of men to the number of women in a 20 member committee is 3:1. How many women must be added to the 20 member committee so as to make the ratio of men to women 3:2 ?
(a)   2   (b)   5   (c)   7   (d)   9
Answer B

27   **Three** men, Bedu, Bakare and Kofi shared N500 in the ratio 3:2:x respectively. If Bedu's share is N150, find the value of x.
(a)   1   (b)   3   (c)   5   (d)   6
Answer C

28   The sides of two cubes are in the ratio 2:5, what is the ratio of their volumes?
(a)   4:5   (b)   8:15   (c)   6:125   (d)   8:125
Answer D

29   Lena bought 400 Alpha Company shares at N1.50 each and sold them at N2.05 each. What was her gain?
(a)   N0.55   (b)   N20.00   (c)   N220.00   (d)   N330.00
Answer C

30   Amma buys 100 oranges at 20 for C 30.00 and another 200 oranges at 4 for C 10.00. If she sells all her oranges at C3.00 each, what was her profit?
(a)   C150.00   (b)   C250.00   (c) C500.00   (d) C650.00
Answer B

31   The price of a litre of petrol is increased from C30.00 to C 39.00. What is the percentage increase in the cost of a litre of petrol ?
(a)   90%   (b)   30%   (c)   34%   (d)   39%
Answer B

32   A trader sold a pair of shoes for C 2,800.00 making a loss of 20% on his cost price. Find his loss as a percentage of his selling price.
(a) $16^2/_3$%   (b)   2%   (c)   25%   (d)   75%
Answer C

33   An article bought for D5,000.00 depreciate by 15% of its value during the first year. Find its value after a year.
(a)   D425.00   (b)   D750.00   (c)   D4,250.00   (d)   D4,985.00
                                                                 Answer C

34   A house bought for N100,000 was later auctioned for N80,000, Find the loss percent.
(a)   20%   (b)   30%   (c)   40%   (d)   50%
Answer A

35   The side of a square is increased from 20cm to 21cm.   Calculate the percentage increase in its area.
(a)   2.5%   (b)   9.3%   (c)   10.0%   (d)   10.25%

Answer D

36   A man bought 2220 mangoes at N5x. He sold each for 3x kobo and made gain of N8.
Find the value of x.
(a)   2   (b)   5   (c)   6   (d)   10
                            Answer C

37   A car moves at an average speed of $30kmh^{-1}$, how long does it take to cover 200
metres?
(a)   2.4sec   (b)   24sec   (c)   144sec   (d)   240sec

                    Answer C

38   A man bought a television set on hire purchase for N25, 000 out of which he paid N10,
000. If he is allowed to pay the balance in eight equal installments, find the value of each
installment
(a)   N1250   (b)   N1578   (c)   N1875   (d)   N3125
Answer B

39   If the simple interest on N2, 000 after 9 months is N6, at what rate per annum is the
interest charged?
(a)   21/4%   (b)   4%   (c)   5%   (d)   6%

Answer B

40   A student bought 3 notebooks and 1 pen for N35. After misplacing these items, she again bought 2 note books and 2 pens, all of the same type for N30. What is the cost of a pen?
(a) N5.00   (b) N7.50   (c)   N10.00   (d)   N15.00

Answer C

ENGLISH LANGUAGE

Choose the word nearest to the word in bold

1.   After many years of struggle as a trader, he **struck gold**
(a)   Became quite rich (b) Won a big contract (c) he became a gold miner   (d) became a goldsmith
Answer B

2.   One significant character of the jet age is that it enc**ourages peopl**e to **cut corners**
(a)   Not to face all problems (b) to want to become rich quickly   (c) to want to avoid unnecessary hardships (d) forfeit the opportunity of further education.
Answer B

3.   The lady who won the beauty contest **had a good gait**
(a)   Stature (b) figure   (c) elegance (d) carriage
Answer B

4.   It would need a **high flyer to make a first c**lass degree in the university
(a)   A smart performer   **(b) an outrigh**t genius   (c) an outstanding scholar   (d) an unmitigated swot
Answer D

5.   What you wil**l find in the bo**ok is a **bird's eye view** of the subject
(a)   A detailed account (b) a balanced account   (c) a biased treatment (d) a general survey
Answer D

6.   Her**s was a chequered career**
(a)   An interesting and successful career (b) a career full of sorrow and tears   (c) a bright and memorable career (d) a career full of ups and downs
Answer D

7.   If **exp**erience is anything to go by, this action will prove a **political mine field**
(a)   A source of political benefits (a) a way out of political trouble (c) a cause for political joy (d) an invitation to political problems.
Answer D

8.   In my view, the play didn't **come off**
(a)   Succeed (b) fail (c) attract applause (d) take place

Answer D