

MATHEMATICS

ACADEMIC EDUCATION PROGRAMME

MATHEMATICS

LEVEL TWO PROMOTIONAL EXAMINATION

**Instruction:** Use the blank sheets provided to do any calculation. The use of the calculator is permitted.

**ANSWER ALL QUESTIONS**

Circle the **Letter** which is next to your choice.

**One** mark for each correct answer

1)  $502 + 35 + 25 + 13 =$

- a. 565
- b. 655
- c. 675
- d. 575

2) In set theory the symbol used to represent a subset is ----.

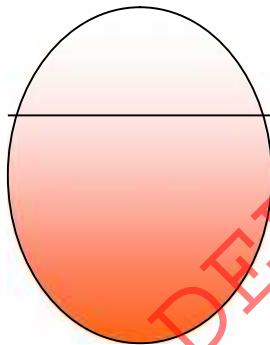
- a.  $\notin$
- b. U
- c.  $\subset$
- d.

MATHEMATICS

3) What is the circumference of a circle of radius 18 cm ----- (to the nearest whole number)?

- a. 226cm
- b. 113cm
- c. 58cm
- d. 131cm

4) On the diagram below (Fig 1) the line divides the circle into a minor and major -  
-----



- a. sector
- b. section
- c. chord
- d. segment

MATHEMATICS

5) 0. 6666 can be described as-

- a. an irrational number
- b. a real number
- c. a repeating decimal
- d. a repeated number

6) The fraction  $\frac{3}{5}$  written as a ratio is---

- a.  $\frac{5}{3}$
- b. 3: 5
- c. 35
- d. 5 : 3

7) The product of  $9ab$  and  $7ab$  is-----

- a.  $63a^2b^2$
- b.  $16a^2b^2$
- c.  $16ab$
- d.  $63ab$

GUYANA DEFENCE FORCE

MATHEMATICS

8) The line that divides a circle into two equal parts is called-

- a. diameter
- b. radius
- c. chord
- d. bisector

9) A plane geometrical figure that has **SIX** sides is called a -----

- a. hexagon
- b. quadrilateral
- c. pentagon
- d. triangle

10) During a sale, an item marked \$7000 has a 5% discount. What is the final cost of the item?

- a. \$7350.
- b. \$6600.
- c. \$6650.
- d. \$3550.

GUYANA DEFENCE FORCE

MATHEMATICS

11)  $\frac{3}{8}$  written as a percentage is---

- a. 0.375
- b. 3.75
- c. 375
- d. 37.5

12)  $\frac{1/2 \times 2/3}{5/6} =$

- a.  $\frac{2}{5}$
- b.  $\frac{4}{9}$
- c.  $\frac{1}{6}$
- d.  $\frac{5}{2}$

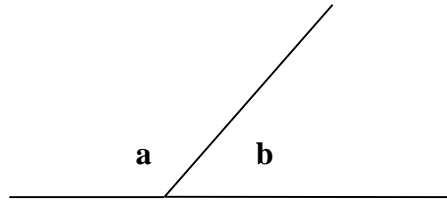
13) A pair of shoes is priced at \$12,000 and attracts a 16% VAT. What is the cost of the pair of shoes?

- a. \$10,080
- b. \$12,000
- c. \$13,920
- d. \$1,920

GUYANA DEFENCE FORCE

MATHEMATICS

14)



In the above diagram the angles marked **a** and **b** are ---- angles

- a. complementary
- b. supplementary
- c. equal
- d. reflex

15) 500 grams equal ---- kilograms

- a. 5.0 kg
- b. 0.05 kg
- c. 50 kg
- d. 0.5 kg

16) What is the **mean** of the following scores- 15, 85, 99, 25, 0.

- a. 0.448
- b. 448
- c. 4.48
- d. 44.8

MATHEMATICS

17) The value for  $x$  in the equation  $3x + 3 = 12$  is-----

- a. 12
- b. 15
- c. 3
- d. 5

18) In metric system 1000 kgs =

- a. 1 tonne
- b. 100 tonne
- c. 10 tonne
- d. 0.5 tonne

19) A business man invested \$6000 for 5 years at the rate of 5% per annum (S.I) What is the total amount of money he will receive at the end of 5 years?

- a. \$750
- b. \$7.50
- c. \$7500
- d. \$75

GUYANA DEFENCE FORCE

MATHEMATICS

20) A plot of land is in the shape of a rectangle with a semi – circular end. The length of the longest side is 100 m and the length of the shortest side of the rectangle is 70 m. Find the perimeter of the plot of land.

a. 2799 m<sup>2</sup>

b. 279.9 m<sup>2</sup>

c. 279.9 m

d. 2799 m

21) What is the area of the plot of land in the shape of a rectangle with a semi – circular end. The length of the longest side is 100 m and the length of the shortest side of the rectangle is 70 m. (to the nearest whole number)?

a. 8923 m

b. 89.23 m<sup>2</sup>

c. 8923 m<sup>2</sup>

d. 89.23 m

22) A shopkeeper purchased 105 cricket balls at a total cost of \$10,080. He sold each at \$90. Calculate his **percentage loss** after selling the 105 balls.

a. 6.25

b. 62.5

c. 625

d. 0.62

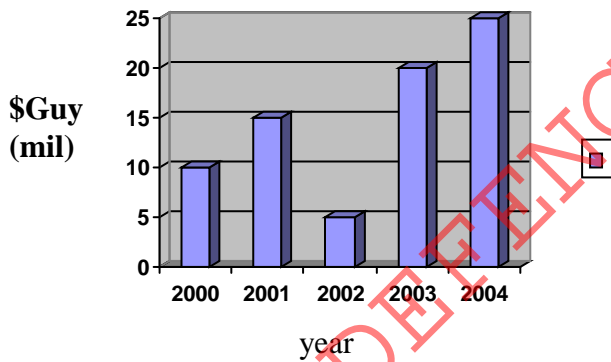


MATHEMATICS

23) The price of a tray of eggs dropped from \$750 to \$375. What was the percentage decrease?

- a. 60
- b. 75
- c. 80
- d. 50%

24)



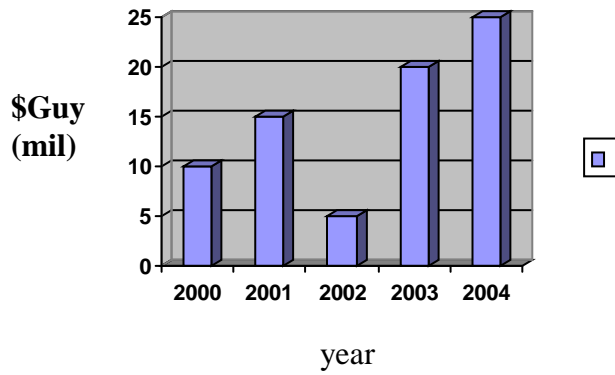
Money spent by G.D.F on ammunition

What is the total amount of money spent by the army on ammunition over the 5 year period.

- a. 95M
- b. 75M
- c. 80M
- d. 60M

MATHEMATICS

25)



Money spent by G.D.F on ammunition

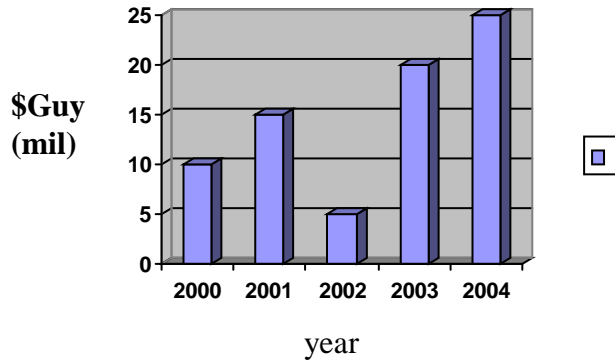
Which year did the army spend the least amount of money?

- a. 2000
- b. 2001
- c. 2002
- d. 2003

GUYANA DEFENCE FORCE

MATHEMATICS

26)



Money spent by G.D.F on ammunition

Calculate the mean amount of money the army spent on ammunition for the period.

- a. 15M
- b. 30M
- c. 25M
- d. 20M

27)  $(2a + 4b) + 4(2a + 3b) =$

- a.  $10a + 16b$
- b.  $12a + 14b$
- c.  $8a + 6b$
- d.  $6a + 7b$

MATHEMATICS

28)  $2ab(2a + b) =$

a.  $4a^2b + 2ab^2$

b.  $2a^2 + 2b^2$

c.  $8ab + 2a^2b$

d.  $4a^2b + 2ab^2$

29) Find the value of  $y$  in the equation  $4y + 9 = 17$

a. 10

b. 8

c. 2

d. 6

30) Find the value of  $x$  in the equation  $6x + 6 = -3x - 3$

a. 3

b. -1

c. 2

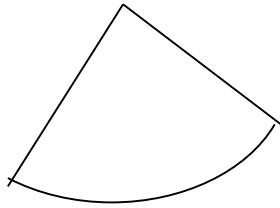
d. -4

GUYANA DEFENCE FORCE

31) What is the circumference of a circle of diameter 18 cm ----- (to the nearest whole number)?

- a.  $56\text{cm}^2$
- b. 1017cm
- c. 56cm
- d.  $1017\text{cm}^2$

32) The diagram below is called a -



- a. sector
- b. section
- c. slice
- d. segment

33) What is the area of a circle of diameter 18 cm ----- (to the nearest whole number)?

- a.  $8.41\text{cm}^2$
- b. 84.1cm
- c.  $84.1\text{cm}^2$
- d. 8.41cm

MATHEMATICS

34) A 2-litre bottle of soda costs \$210. A 3-litre bottle of the same soda costs \$ 279. Which is a better deal?

- a. Purchasing the two litre bottle
- b. purchasing three litre bottle
- c. purchasing both bottles
- d. none of the above

35) 0. 3333 can be described as-

- a. an irrational number
- b. a real number
- c. a repeating decimal
- d. a repeated number

36) The fraction  $\frac{9}{27}$  written as a ratio (in its lowest form) is-----.

- a. 9:27
- b. 3: 9
- c. 27/9
- d. 1 : 3

GUYANA DEFENCE FORCE

MATHEMATICS

37) The **sum** of  $9ab$  and  $7ab$  is-----.

- a.  $63a^2b^2$
- b.  $16a^2b^2$
- c.  $16ab$
- d.  $63ab$

38) Two straight lines that **never meet** is called----- lines

- a. parallel
- b. horizontal
- c. vertical
- d. oblique

39) A cube is a geometrical figure that has ----- faces.

- a. 6
- b. 4
- c. 5
- d. 3

GUYANA DEFENCE FORCE

MATHEMATICS

40) During a sale, an item marked \$7000 has a 5% discount. What is the amount of money saved by the purchaser?

- a. \$35.50
- b. \$3550
- c. \$3.50
- d. \$350

41)  $\frac{3}{8}$  written as a percentage is-----.

- a. 0.375
- b. 3.75
- c. 375
- d. 37.5

42)  $\frac{\frac{2}{3} - \frac{1}{2}}{\frac{5}{6}} =$

- a.  $\frac{1}{5}$
- b.  $\frac{6}{36}$
- c.  $\frac{6}{12}$
- d.  $\frac{35}{36}$

GUYANA DEFENCE FORCE

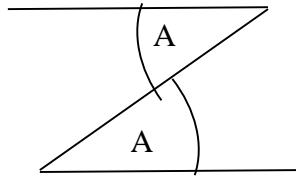


MATHEMATICS

43) A pair of shoes is priced at \$12,000 and a 5% discount is given when purchase. What is the cost of the pair of shoes?

- a. \$10,080
- b. \$12,600
- c. \$11,400
- d. \$1,920

44)



In the above diagram the angles marked **A** are --- angles.

- a. complementary
- b. corresponding
- c. alternate
- d. reflex

45) 2500 grams equal ---- kilograms.

- a. 25.0
- b. 2.5 kg
- c. 250 kg
- d. 2.05 kg

MATHEMATICS

46) What is the **mean** of the following scores- 15, 85, 99, 25, 0.

- a. 0.448
- b. 448
- c. 4.48
- d. 44.8

47) The value for **x** in the equation  $3x - 3 = 12$  is-----.

- a. 12
- b. 15
- c. 3
- d. 5

48) A man's wages for a forty-hour work week is \$17500. What is his hourly rate of pay?

- a. \$437.5
- b. \$4375
- c. \$43.75
- d. \$4.37

GUYANA DEFENCE FORCE

MATHEMATICS

49) A business man invested \$6000 for 5 years at the rate of 5% per annum (S.I). What is the total amount of money (in interest) will he receive at the end of 5 years?

- a. \$1.50
- b. \$1500
- c. \$150
- d. \$15

50) A plot of land is in the shape of a triangle (ABC) with sides 15m. The length from **A** to the mid-point on **BC** is 13m. Calculate the perimeter of the triangle.

- a. 45m
- b. 97.5m<sup>2</sup>
- c. 97.5m
- d. 45m<sup>2</sup>

51) Given that  $a = 1$ ,  $b = -3$ . The value of  $4a - 6b$  is ----.

- a. 14
- b. -22
- c. -14
- d. 22

MATHEMATICS

52) A shopkeeper purchased 105 cricket balls at a total cost of \$10,080. He sold each at \$90. Calculate his percentage loss after selling the 105 balls.

- a. 62.5
- b. 0.63
- c. 6.25
- d. 6

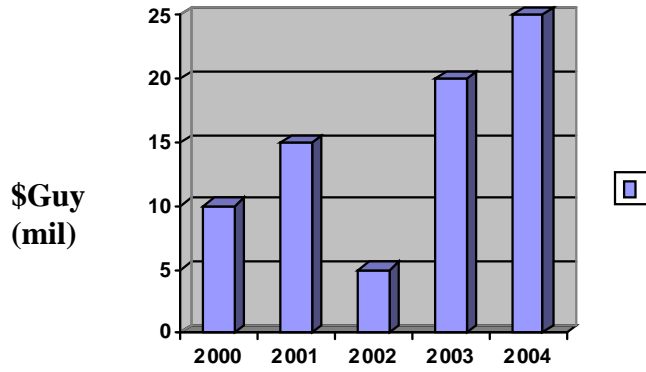
53) The price of a tray of eggs increased from \$450 to \$575. What was the percentage increase?

- a. 2.8
- b. 2.77
- c. 2.78
- d. 27.78

GUYANA DEFENCE FORCE

MATHEMATICS

54)



Money spent by G.D.F on Education

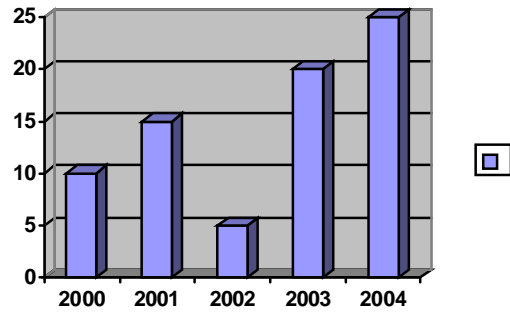
What is the total amount of money spent by the GDF on Education over the 5 year period.

- a. 95M
- b. 75M
- c. 80M
- d. 60M

GUYANA DEFENCE FORCE

MATHEMATICS

55)



Money spent by G.D.F on Education

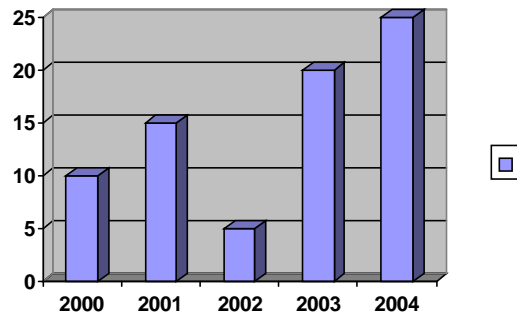
Which year did the GDF spend the most money on Education?

- a. 2000
- b. 2001
- c. 2004
- d. 2003

GUYANA DEFENCE FORCE

MATHEMATICS

56)



Money spent by G.D.F on Education

What was the **average** amount of money spent by the GDF on Education over the five years.

- a. 15M
- b. 30M
- c. 25M
- d. 20M

57) Solve

$$(2a - 4b) + 4(2a + 3b)$$

- a.  $10a + 8b$
- b.  $10a + 16b$
- c.  $4a - b$
- d.  $4a + 7b$

58) Simplify

$$-2ab(2a + b)$$

a.  $4a^2 b - 2ab^2$

b.  $-4a^2 b - 2ab^2$

c.  $8ab + 2a^2 b$

d.  $4a^2 b + 2ab^2$

59) Find the value of  $y$  in the equation  $4y - 11 = 17$

a.  $-7$

b.  $8$

c.  $7$

d.  $1.5$

60) Find the value of  $x$  in the equation  $6x - 6 = -3$

a.  $3$

b.  $1$

c.  $2$

d.  $-1$

GUYANA DEFENCE FORCE



MATHEMATICS

61)  $50.2 + 0.53 + 2.51 + 0.3 =$

- a. 53.54
- b. 53.5
- c. 53.36
- d. 53.29

62) Set A = ( a, b, c, d) and set B = (1,2,3,4). We can conclude that:-

- a. set A is a subset of set B
- b. set A equal to set B
- c. set A intersect set B
- d. set A and set B are unequal sets

63) A rectangular tank has a cross-sectional area of  $400\text{m}^2$  and a height of 30m. Calculate its volume?

- a.  $1200\text{m}^3$
- b.  $12000\text{m}^2$
- c.  $1200\text{m}^2$
- d.  $12000\text{m}^3$

MATHEMATICS

64)  $15_{10}$  written in base 2 is-----.

- a.  $1011_2$
- b.  $1110_2$
- c.  $1111_2$
- d.  $1101_2$

65) 35.15 expressed to three significant figures is-----.

- a. 3.51
- b. 3.52
- c. 351
- d. 35.2

66) The product of  $3x^2y$  and  $4xy^3$  is-----.

- a.  $7x^2y^3$
- b.  $12x^3y^4$
- c.  $12x^2y$
- d.  $7xy^2$

GUYANA DEFENCE FORCE

MATHEMATICS

67) The line that divides a circle into a major and minor sector is called;-

- a. diameter
- b. radius
- c. chord
- d. bisector

68) A plane geometrical figure that has **Seven** sides is called a -----

- a. heptagon
- b. quadrilateral
- c. pentagon
- d. hexagon

GUYANA DEFENCE FORCE

MATHEMATICS

69) Charges for electricity in a certain country are made up of a fixed fuel charge of \$5 per unit and an energy charge computed under three scheme as follows:-

**Scheme A – home \$15 per unit**

**Scheme B – school \$20 per unit**

**Scheme C - business \$ 30 per unit**

The meter reading of a certain school read as follows

Meter reading		Units used	Scheme B	Fuel charge	Energy charge
Previous	present				
40214	18836				

What was the number of units used?

- a. 21.378
- b. 22,378
- c. 21,378
- d. 22.378

GUYANA DEFENCE FORCE

MATHEMATICS

70) Charges for electricity in a certain country are made up of a fixed fuel charge of \$5 per unit and an energy charge computed under three scheme as follows:-

**Scheme A – home \$15 per unit**

**Scheme B – school \$20 per unit**

**Scheme C - business \$ 30 per unit**

The meter reading of a certain school read as follows

Meter reading		Units used	Scheme B	Fuel charge	Energy charge
Previous	present				
40214	18836				

What was the energy charge?

- a. \$42,756
- b. \$427,560
- c. \$427.56
- d. \$42.76

GUYANA DEFENCE FORCE

MATHEMATICS

71) Charges for electricity in a certain country are made up of a fixed fuel charge of \$5 per unit and an energy charge computed under three scheme as follows:-

**Scheme A – home \$15 per unit**

**Scheme B – school \$20 per unit**

**Scheme C - business \$ 30 per unit**

The meter reading of a certain school read as follows

Meter reading		Units used	Scheme B	Fuel charge	Energy charge
Previous	present				
40214	18836				

What was the fuel charge?

- a. \$106,890
- b. \$10,689
- c. \$106.89
- d. \$1,069

GUYANA DEFENCE FORCE

72) Charges for electricity in a certain country are made up of a fixed fuel charge of \$5 per unit and an energy charge computed under three scheme as follows:-

**Scheme A – home \$15 per unit**

**Scheme B – school \$20 per unit**

**Scheme C - business \$ 30 per unit**

The meter reading of a certain school read as follows

Meter reading	Units used	Scheme B	Fuel charge	Energy charge
Previous	present			
40214	18836			

What is the total amount the school has to pay for electricity used?

- a. \$534.45
- b. \$53,445
- c. \$524,350
- d. \$534,450

73) The number 29 written in **Roman Numeral** is -----.

- a. xixx
- b. xxix
- c. xxxi
- d. xxviii

MATHEMATICS

74)  $\frac{2.5 \times 0.25}{2.5} =$

- a. 15
- b. 25
- c. 2.5
- d. 0.25

75) A pair of shoes is priced at \$12,000 and attracts a 16% VAT. What is the amount of VAT paid on the pair of shoes?

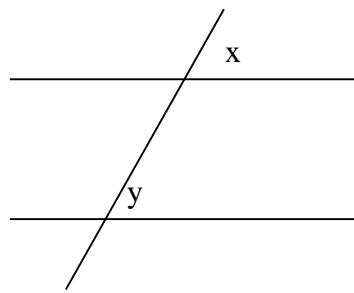
- a. \$10,080
- b. \$12,000
- c. \$13,920
- d. \$1,920

GUYANA DEFENCE FORCE



MATHEMATICS

76)



In the diagram above the angles marked **x** and **y** are ---- angle.

- a. co-interior
- b. corresponding
- c. alternate
- d. reflex

77) 2500 grams equal ---- kilograms

- a. 5.0
- b. 0.05
- c. 50
- d. 2.5

GUYANA DEFENCE FORCE

MATHEMATICS

78) The **average** of the four numbers is 56. What is the **new average** when 14 is added to first four numbers?

- a. 56
- b. 14
- c. 1.4
- d. 5.6

79) The value for **x** in the equation  $3x - 3 = 12 - 2x$  is-----.

- a. 12
- b. 15
- c. 3
- d. 5

80) In the formula  $s = d/t$ , then  $d =$

- a.  $st$
- b.  $s/t$
- c.  $t/s$
- d.  $sd$

GUYANA DEFENCE FORCE

MATHEMATICS

81) A business woman invested a certain amount of money for 5 years at the rate of 5% per annum (S.I). At the end of five years she received \$7500. What is the amount of money she invested?

- a. \$700
- b. \$700
- c. \$6000
- d. \$600

82) A plot of land is in the shape of a rectangle with a semi-circular end is to be fence using wire mesh. The length of the longest side is 100 m and the length of the shortest side of the rectangle is 70 m.

What length of wire mesh will be required to fence the plot of land?

- a. 570 m
- b. 460 m
- c. 380 m
- d. 550 m

83) A plot of land is in the shape of a rectangle with a semi-circular end is to be fence using wire mesh. The length of the longest side is 100 m and the length of the shortest side of the rectangle is 70 m. What is the area enclosed by the fence (to the nearest whole number)?

- a. 8924m
- b. 89.24 m<sup>2</sup>
- c. 8924m<sup>2</sup>
- d. 89.24

84) The cost of the wire mesh is \$205 per metre. What is the total cost for fencing the plot of land?

- a. \$77,900
- b. \$779
- c. \$7790
- d. \$780

85) A tray of eggs which cost \$750 was reduced by 30%. What is the **new price** for a tray of eggs?

- a. \$552
- b. \$975
- c. \$225
- d. \$525

86) A motor car travels 180 km on 15 litres of petrol. How far will the car likely to travel on 9 litres of petrol?

- a. 10.8 km
- b. 108 km
- c. 1.08km
- d. 1080km

87) **Solve**  $(x + 4y) + 4(2x + 3y)$

a.  $9x + 16y$

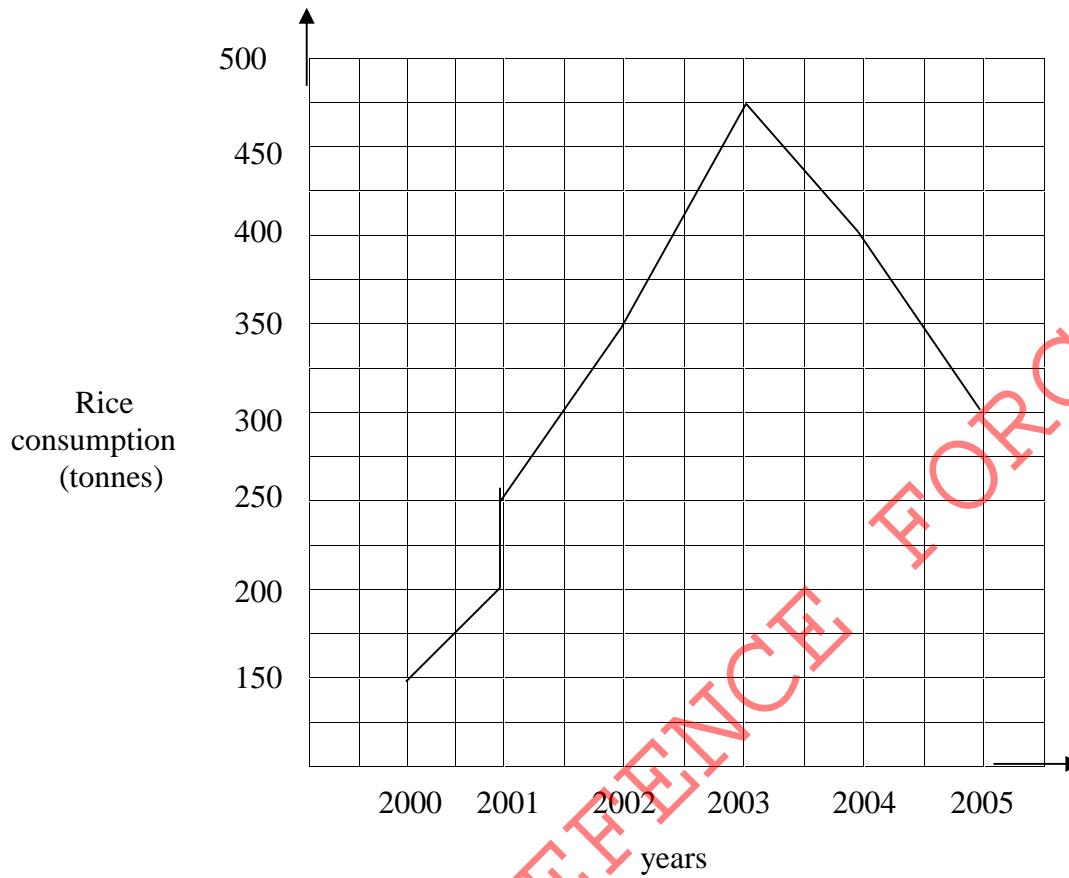
b.  $12x + 7y$

c.  $9xy + 16y$

d.  $6x + 7y$

GUYANA DEFENCE FORCE

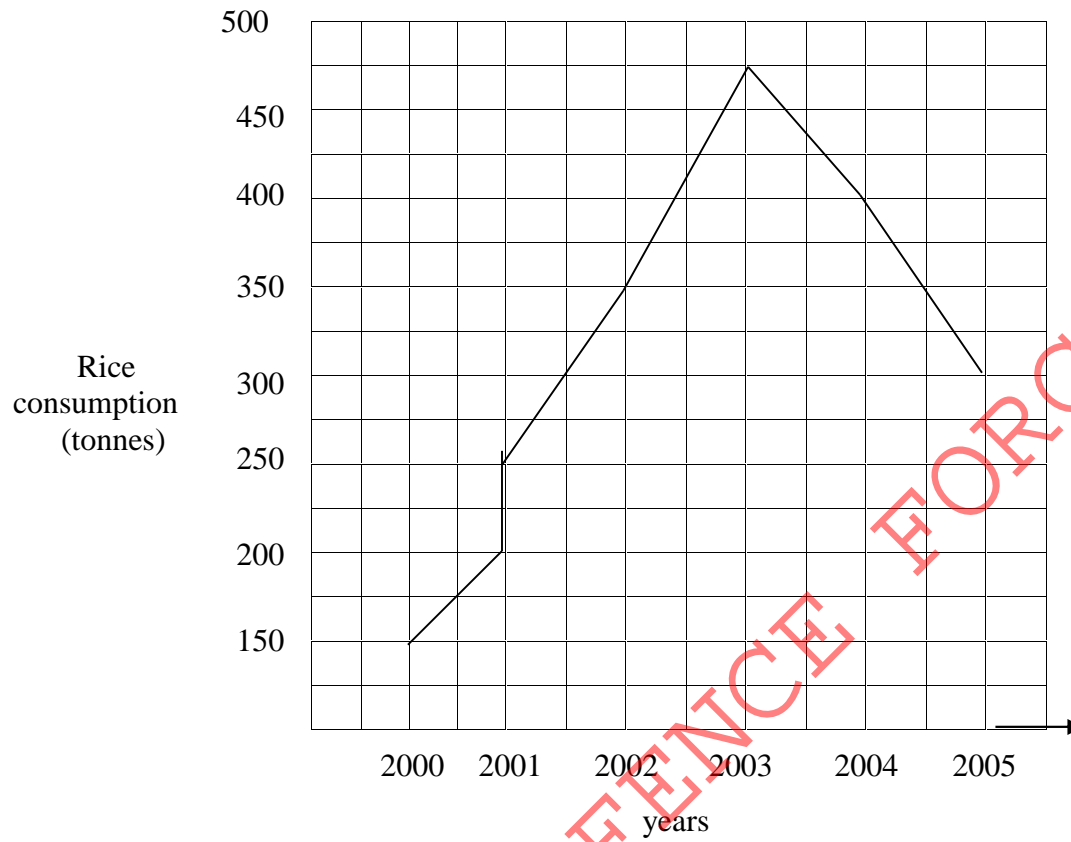
MATHEMATICS



88) The graph above shows the consumption of rice over a six years period. Which year had the highest consumption?

- a. 2004
- b. 2002
- c. 2003
- d. 2005

89)



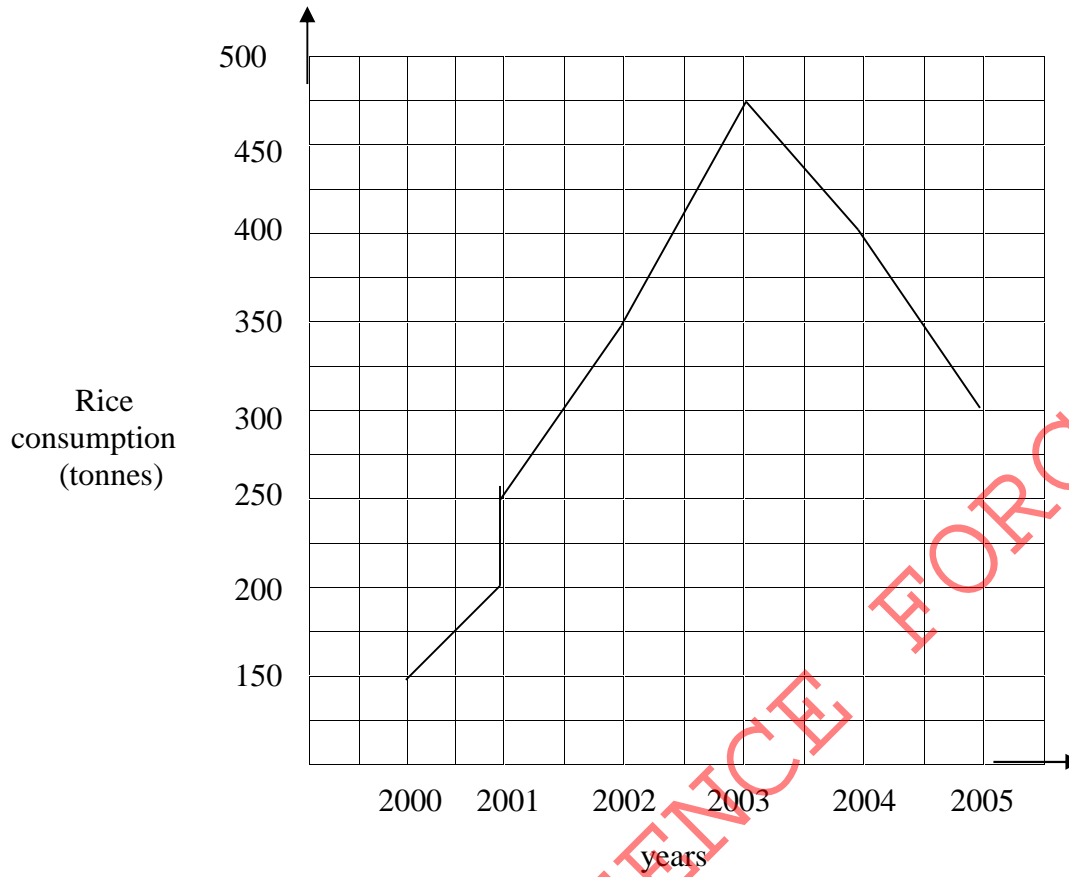
What was the consumption of rice in 2002?

- a. 350
- b. 300
- c. 325
- d. 250

GUYANA DEFENCE FORCE

MATHEMATICS

90)



What was the consumption of rice in the first 18 months of the period?

- a. 150
- b. 175
- c. 250
- d. 200

GUYANA DEFENCE FORCE



MATHEMATICS

91)  $202 + 10 + 35 + 3 =$

- a. 250
- b. 240
- c. 277
- d. 655

92) Given the universal set  $U = (1,2,3,4,5,6,7,8,9)$  and set  $A = (3,5,7,9)$ , then the **complement** of set A is-----.

- a. (1,2,4,6,8)
- b. (1,2,3)
- c. (3,5,7,9)
- d. (1,4,7,8)

93) The circumference of a circle of diameter 1.4m (to the closest whole number) is-----.

- a. 44 m<sup>2</sup>
- b. 44 m
- c. 4 m
- d. 4 m<sup>2</sup>

GUYANA DEFENCE FORCE

MATHEMATICS

94) The number  $1101_2$  expressed in base ten is-----.

- a. 10
- b. 11
- c. 12
- d. 01

95) The sum of  $1010_2 + 101_2 + 10_2 + 1001_2$  is-----.

- a.  $10110_2$
- b.  $10101_2$
- c.  $11010_2$
- d.  $1010_2$

96) In a certain unit of the Guyana Defence Force there are 30 Junior Non-Commission Officers to 15 Senior Non-Commission Officers. The ratio of Junior Non-Commission Officers to Senior Non-Commission Officers (in its lowest form) is-----.

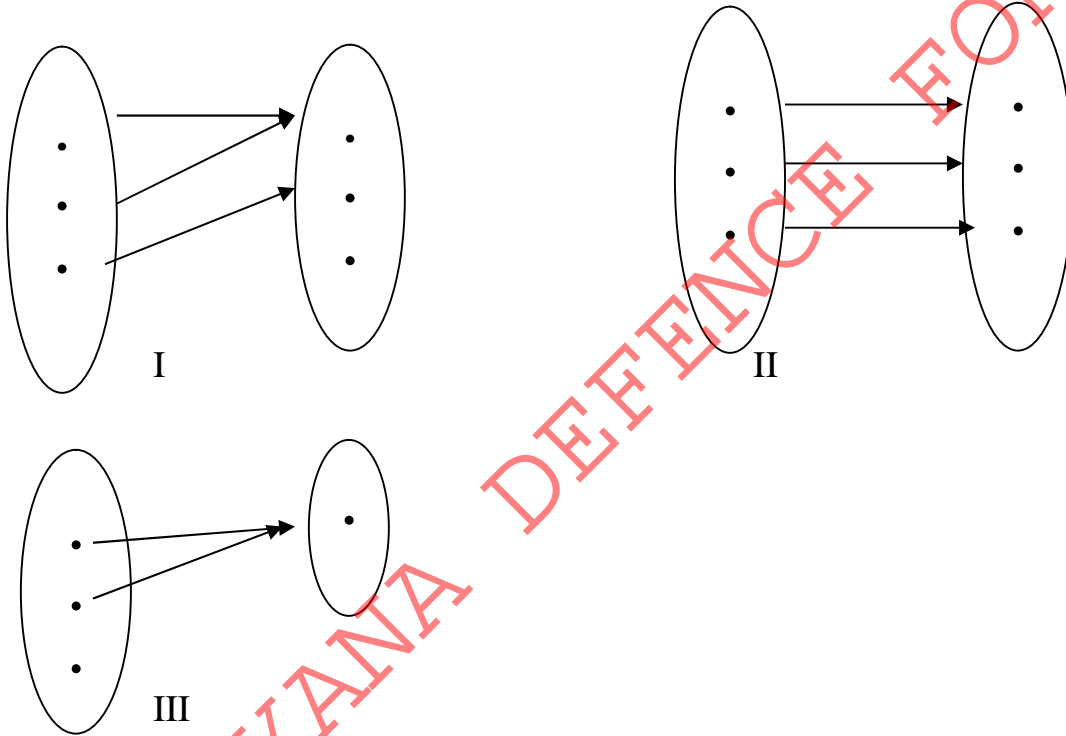
- a.  $6/3$
- b.  $2/1$
- c.  $1/2$
- d.  $30/15$

GUYANA DEFENCE FORCE

97) The **product** of  $9y$  and  $7y$  is-----.

- a.  $63y$
- b.  $16+y^2$
- c.  $16+y$
- d.  $63y^2$

98)



Which of the diagram above represents a one-to-one relation?

- a. I
- b. I and III
- c. II
- d. I and II

MATHEMATICS

99) A plane geometrical figure that has 9 sides is called a –

- a. nonagon
- b. octagon
- c. heptagon
- d. trapezium

100) During a sale, an item marked \$700 has a 5% sales tax at the time of purchase. What is the amount paid in tax when the item is purchased?

- a. \$35
- b. \$3.50
- c. \$0.35
- d. \$3

101) 58400 written in standard form is-----

- a.  $5.84 \times 10^4$
- b.  $5.84 \times 10^3$
- c.  $5.84 \times 10^2$
- d.  $5.84 \times 10$

GUYANA DEFENCE FORCE

MATHEMATICS

102)  $3 \frac{1}{2} + 4 \frac{2}{3} + \frac{1}{4} =$

- a.  $9 \frac{5}{12}$
- b.  $8 \frac{5}{12}$
- c.  $12 \frac{5}{8}$
- d.  $12 \frac{5}{9}$

103) A pair of shoes is priced at \$12,000 and attracts a 6% discount. What is the cost of the pair of shoes?

- a. \$10,080
- b. \$12,800
- c. \$11,280
- d. \$1920

104) When **drawing** angles we used the following:

- I. Ruler, pencil and compasses
- II. Ruler, pencil and dividers
- III. Pencil, dividers and protractor

- a. III only
- b. II only
- c. I and II only
- d. I only

MATHEMATICS

105) 5 grams equal ---- milligrams.

- a. 500
- b. 5000
- c. 50
- d. 5

106) Samuels scored the following runs in a T20 series: 15, 85, 99, 25, 0. What was his **median** score?

- a. 20
- b. 85
- c. 99
- d. 25

107)  $y = -3$  is a \_\_\_\_\_ line drawn on the y-co-ordinate.

- a. curve
- b. horizontal
- c. vertical
- d. oblique

GUYANA DEFENCE FORCE

MATHEMATICS

108) The value for “ x” in the equation  $2x - 3 = 11$  is-----.

- a. 7
- b. 16
- c. 6
- d. 4

109) The magnitude of the data on a vertical proportional bar chart is --- to its height or length.

- a. directly proportional
- b. equally
- c. indirectly proportional
- d. unequal

110) The formula  $I = PRT/100$  is used to calculate.

- a. simple interest
- b. compound interest
- c. accrued interest
- d. applied interest

MATHEMATICS

111) An athletic track is in the shape of a rectangle with a semi-circular end. The length of the long side is 100m and the length of the short is 80m. What is the perimeter of the track?

- a.  $702.4\text{m}^2$
- b.  $702.4\text{m}$
- c.  $451.2\text{m}^2$
- d.  $451.2\text{m}$

112) The sum of  $205_5 + 101_5 + 72_5$  is-----.

- a. 43.3
- b.  $43.3_5$
- c. 433
- d.  $433_5$

113) Solve  $3(x + y) - 4(3x + 2y)$

- a.  $9x + 5y$
- b.  $-9x - 5y$
- c.  $15x + 11y$
- d.  $12xy + 12x^2$

GUYANA DEFENCE FORCE



MATHEMATICS

114) An operation is defined by  $ab = 3ab$ , evaluate  $33 = 3ab$ .

- a. 8
- b. 9
- c. 27
- d. 15

115) A shopkeeper purchased 80 cricket bats at a total cost of \$10,000. She sold each bat at \$130. Express her profit for selling all 80 bats as a percentage .

- a. 3
- b. 4
- c. 6
- d. 8

116) Solve  $2y - 9 = 9$

- a.  $y = -9$
- b.  $y = 9$
- c.  $y = 0$
- d.  $y = 8$

GUYANA DEFENCE FORCE

MATHEMATICS

117) The weights, of 12 soldiers selected at random are as follows: 50kg, 55kg, 65kg, 75kg, 80kg, 95kg, 85kg, 40kg, 70kg, 90kg, 45kg, and 60kg. The range of the weight of soldiers is----.

- a. 30kgs
- b. 5.0 kgs
- c. 300kgs
- d. 100kgs

118) Solve  $3y(2y - x)$

- a.  $6y^2 - 3xy$
- b.  $6y - 3xy$
- c.  $3xy - 6xy$
- d.  $6y + 3xy$

119) In the formula  $I = \frac{PRT}{100}$ ,  $R =$

- a.  $I \times 100/PT$
- b.  $PT/I \times 100$
- c.  $100/PTI$
- d.  $IT/P \times 100$

MATHEMATICS

120) Solve  $3y - 6 = y + 4$

- a. 6
- b. 3
- c. 7
- d. 5

121) The perimeter of a triangular plot of land is 152 metres and the ratio of lengths of side is 5: 6: 8, the length in metres of the longest side is-----.

- a. 40
- b. 48
- c. 64
- d. 76

122)  $(2\frac{2}{3})^3$  is equal to

- a.  $(18\frac{16}{27})$
- b.  $(18\frac{4}{9})$
- c.  $(18\frac{1}{9})$
- d.  $(18\frac{8}{9})$

GUYANA DEFENCE FORCE

MATHEMATICS

123) On Thursday, Dennis ran  $3\frac{1}{2}$  kilometres, on Friday he ran  $4\frac{1}{2}$  kilometres, and on Saturday,  $\frac{3}{4}$  kilometres. What is the total distance he ran in the three days?

a.  $5\frac{1}{2}$

b.  $8\frac{3}{4}$

c.  $7\frac{1}{3}$

d.  $9\frac{7}{8}$

124) Sam is 2 years younger than Deon, who is  $y$  years old. Write an expression for Sam's age.

a.  $y + 2$

b.  $y - 2$

c.  $2y$

d.  $\frac{y}{2}$

GUYANA DEFENCE FORCE

MATHEMATICS

125) Melissa is 5 cm taller than her sister, who is  $m$  cm tall. Write an expression for Melissa's height.

a.  $m + 5$

b.  $5m$

c.  $m - 5$

d.  $\frac{m}{5}$

126) A tailor charges \$ 3,600 (inclusive of a 8% sales tax) for a pair of pants but allows. What is the price of the pair of pants (exclusive of the sales tax)?

a. \$2,880

b. \$331

c. \$3,312

d. \$ 3,888

127) Elaine sells furniture and receives a 20% commission on the value of her sales. In April, her sales totaled \$ 83,600. What was her commission?

a. \$16,720

b. \$20,000

c. \$28,248

d. \$36,125

MATHEMATICS

128) Simplify  $\frac{m}{12} + \frac{2m+n}{4} - \frac{m-2n}{3}$

a.  $\frac{3m-11n}{12}$

b.  $\frac{2m+n}{8}$

c.  $\frac{3m+11n}{12}$

d.  $\frac{2m-n}{8}$

129) Shane received a \$1,225 commission on sales totaled \$8,200 in men's clothing. What was his commission rate?

a. 17%

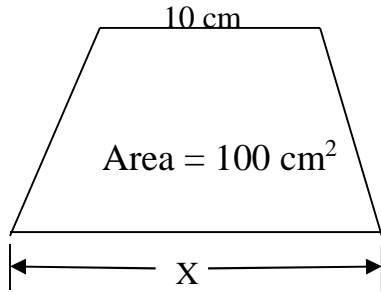
b. 13%

c. 20%

d. 15%

GUYANA DEFENCE FORCE

130)



Calculate the length of X for the above figure

- a. 100 cm
- b. 200 cm
- c. 95 cm
- d. 190 cm

131) The average attendance of a class for 5 days is 34. If the attendance for 4 days was 36, 37, 38 and 34, What was the attendance on the fifth day?

- a. 25
- b. 29
- c. 34
- d. 36

132) Find the radius of a circle whose circumference is 21.99 mm.

- a. 3.4 mm
- b. 3.5 mm
- c. 26.50mm
- d. 45.44 mm

133) Given that the circumference of a circle is 86.72 m. Determine the diameter of the circle.

- a. 138 m
- b. 1.38m
- c. 27.6m
- d. 0.138m

134) Find the area of a circle whose radius is 4.2 cm.

- a.  $5.54 \text{ cm}^2$
- b.  $544. \text{ cm}^2$
- c.  $55.42 \text{ cm}$
- d.  $55.42 \text{ cm}^2$

135) A hexagon has interior angles of  $100^\circ$ ,  $120^\circ$ ,  $110^\circ$  and  $128^\circ$ . If the remaining two angles are equal. What are their sizes?

- a.  $182^\circ$
- b.  $131^\circ$
- c.  $150^\circ$
- d.  $112^\circ$

GUYANA DEFENCE FORCE



MATHEMATICS

136) The scale drawing of a school is 250:1. What distance does 3 cm on the drawing represents?

- a. 380 cm
- b. 620 cm
- c. 500 cm
- d. 750 cm

137) In **statistics** the observation which may be used by Business men is the.

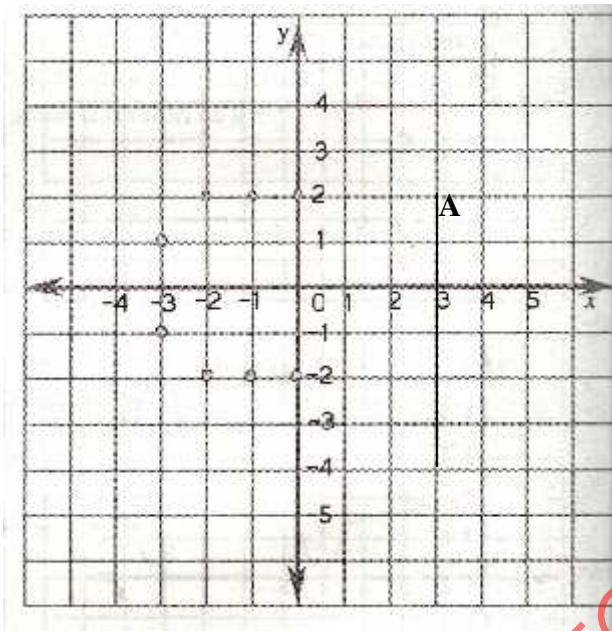
- a. median
- b. mean deviation
- c. standard deviation
- d. mode

138) The **mean** of ten numbers is 58. When the numbers is 40 is added. What is the new mean?

- a. 40
- b. 62
- c. 60
- d. 620

GUYANA DEFENCE FORCE

139)

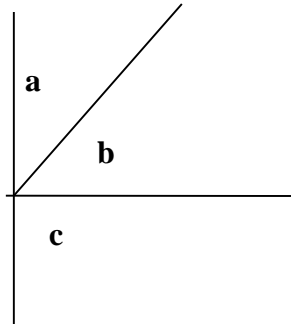


On the diagram above the line marked **A** is-----

- a.  $x = 3$
- b.  $x = -3$
- c.  $x = -2$
- d.  $x = 2$

GUYANA DEFENCE FORCE

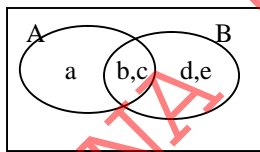
140)



In the diagram above the angles marked **a**, **b** and **c** are ---- angles.

- a. complementary
- b. supplementary
- c. equal
- d. reflex

141) Given that  $A = \{a,b,c\}$   $B = \{b,c,d,e\}$ , the venn diagram below represents



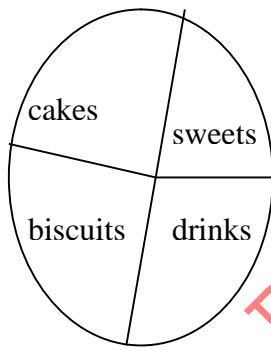
- a. an intersection
- b. a union
- c. a subset
- d. a null set

MATHEMATICS

142) An athletic track is in the shape of a rectangle with semi-circular ends. The length of the longest side is 120m and the length of the shortest side of the rectangle is 70m. If an athlete ran around the track  $3\frac{3}{4}$  times, what distance would he have covered?

- a.  $1724.8 \text{ m}^2$
- b. 172.48 m
- c. 1724.8 m
- d.  $172.48 \text{ m}^2$

143) The circle below is divided into four -----.



- a. segments
- b. sections
- c. slices
- d. sectors

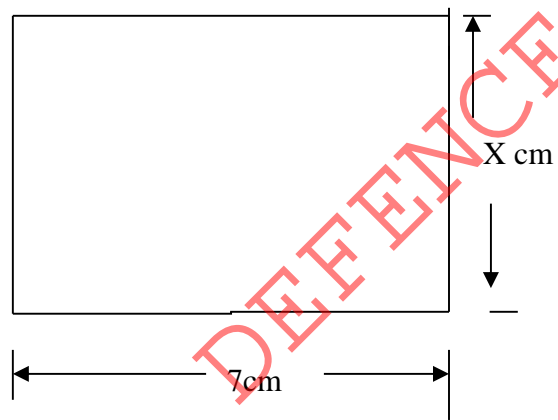
GUYANA DEFENCE FORCE

MATHEMATICS

144) When a certain number is double, and 13 is subtract, the result is 17. What was the number that was doubled?

- a. 12
- b. 14
- c. 15
- d. 18

145) The sides of a rectangle are  $x$  cm and 7cm respectively. It's perimeter is 40 cm. Calculate the value of  $x$ .



- a. 15 cm
- b. 13 cm
- c. 19 cm
- d. 21 cm

MATHEMATICS

146) Five times the product of **a** and **b**, may be written as-

- a.  $5ab$
- b.  $5a+ b$
- c.  $5a + 5b$
- d.  $25 ab$

147) What is the **least** number of sweets which can be shared equally among 9, 12, and 18 children?

- a. 24
- b. 36
- c. 48
- d. 60

148) The number 32747 written to 4 significant figures is-----.

- a. 32740
- b. 32750
- c. 3274
- d. 3275

GUYANA DEFENCE FORCE

MATHEMATICS

149) How much simple interest is due on a loan of \$120,000 for two years if the annual rate of interest is 5.5%?

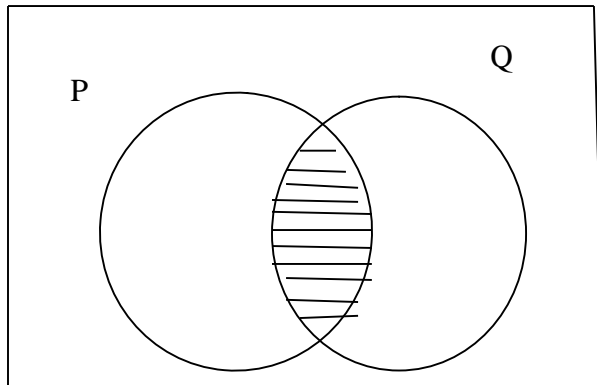
- a. \$13,200
- b. \$14,400
- c. \$16,300
- d. \$12,500

150) The cost of an article is \$ 400 and the profit is 20% of the cost price. What is the selling price of the article?

- a. \$ 430
- b. \$ 525
- c. \$ 630
- d. \$ 480

GUYANA DEFENCE FORCE

151)



In the venn diagram above, the shaded portion represents.

- a.  $P \cup Q$
- b.  $P \cap Q'$
- c.  $P' \cap Q$
- d.  $P \cap Q$

152) The simple interest gained on \$500 for 2 years at a rate of 10% per annum is--.

- a. \$ 300
- b. \$ 100
- c. \$ 400
- d. \$ 500

GUYANA DEFENCE FORCE



MATHEMATICS

153) If  $x$  is an odd number, which of the following is also odd.

- a.  $x - 1$
- b.  $x + 1$
- c.  $2x$
- d.  $2x - 1$

154) How many litres of soft drink could a container of  $4000 \text{ cm}^3$  hold?

- a. 2
- b. 4
- c. 6
- d. 8

155) How many litres of water could a container whose volume is  $36 \text{ cm}^3$  hold?

- a. 0.036
- b. 0.36
- c. 36
- d. 3600

GUYANA DEFENCE FORCE

MATHEMATICS

156) If 1300 out of 6500 members voted in an association's elections, then the percent which voted is-----.

- a. 5%
- b. 10%
- c. 15%
- d. 20%

157) A man gave his wife 25% of his wage, banked 35% and the remainder he used to purchase groceries for his home. What amount did he spend on groceries if his salary was \$54000?

- a. \$29,700
- b. \$18,900
- c. \$24,300
- d. \$32,400

158) If 136 out of 375 soldiers took part in a run and shoot competition, the percentage that participated in the competition is-----.

- a. 43.4
- b. 30.6
- c. 36.3
- d. 50.2

GUYANA DEFENCE FORCE

MATHEMATICS

159) Y is directly proportional to  $x^2$ . When  $x = 5$ , then  $y = 25$ .

What is the value of y when  $x = 3$ ?

- a. 9
- b. 27
- c. 15
- d. 23

160) The heights of 7 soldiers in centimeters are given below:

163, 162, 160, 165, 167, 170, 179.

Determine the mean height of the soldiers

- a. 120.12 cm
- b. 111.40 cm
- c. 148.32 cm
- d. 166.57 cm

GUYANA DEFENCE FORCE

MATHEMATICS

161) A bus is scheduled to depart at 13: 25 hrs on a school tour that takes  $2\frac{3}{4}$  hrs. The bus actually departed at 14:05 and arrived at its destination 25 minutes later than schedule. What length of time did the journey last.

- a. 3hrs. 45 min
- b. 3hrs. 10 min
- c. 3hrs.05 min
- d.3hrs.55min

GUYANA DEFENCE FORCE