MINISTRY OF EDUCATION

ST. VINCENT AND THE GRENADINES

COMMON ENTRANCE EXAMINATION

2006

MATHEMATICS

TEST CODE: 012A

<u>Time allowed: 1 hour 30 minutes</u>

<u>Instructions:</u>

1. This examination has 60 items.
   Each item has four possible answers: **A, B, C, D.**
   Choose the correct answer.

2. On your answer sheet, shade the circle which contains the letter you have chosen for your answer.

   <u>Please use a No. 2 HB pencil</u>

3. **<u>Do not take any paper out of the examination room.</u>**

   Return this booklet, your answer sheet and all scrap paper to the invigilator before you leave the room.

4. You have **90 minutes** in which to complete this test.

1. $325 + 47 + 8 =$

   A 360   B   380
   C 442   D 1595

2. $305 \times 6 =$

   A   180   B   311
   C 1830   D 3018

3. $845 - 650 =$

   A 195   B 210
   C 215   D 295

4. 100 as a power of 10, is

   A 10^1 B 10^2
   C 10^3 D 10^4

5. $\frac{5}{8}$ is equivalent to

   A $\frac{4}{7}$ B $\frac{15}{58}$

   C $\frac{15}{24}$ D $\frac{25}{64}$

6. $\frac{2}{3} + \frac{3}{5} =$

A $\frac{6}{15}$ B $\frac{5}{8}$

C $1\frac{4}{15}$ D $1\frac{9}{15}$

7. $192 \div 8 =$

A 24   B 184
C 200   D 1536

8. $17.3 + 6.15 + 9 =$

A 0.797   B 23.54
C 32.45   D 79.7

9. What is the **DIFFERENCE** between 73 and 37?

A 0   B 36
C 44   D 110

10. How many times can I get $\frac{1}{7}$ from 2 wholes?

A 1   B 2
C 7   D 14

11. Ali has $24.00. He spends one quarter of it. How much money does he have left?

A $6.00   B $18.00
C $20.00   D $23.75

12. If 2 lbs is about 900 g, then 10 lbs is about

A   4,500 g   B   9,000 g
C 18,000 g   D 45,000 g

13. The **product** of 80 and 9 is

A   71   B   89
C 720   D 809

14. What is $15/7$ when written as a mixed number?

A $1\ 2/15$ B $1\ 2/7$

C $2\ 1/15$ D $2\ 1/7$

15. The number 354 to the nearest hundred is:

A 200   B 300
C 400   D 500

16. A whole number is divided by 7. Which one of the following numbers **CANNOT** be the remainder?

    A 1   B 3
    C 5   D 7

17. Which one of the following numbers is a prime number?

    A 1   B 2
    C 6   D 9

18. Which set below contains numbers that are all **multiples of 6**?

    A $\{3, 6, 24\}$ B $\{6, 12, 24\}$

    C $\{6, 15, 24\}$ D $\{6, 8, 24\}$

19. A tank is $\frac{1}{3}$ full when it has 9 litres of water. How many more litres of water are needed to fill the tank?

    A 3   B 6
    C 18   D 27

20. In a class of 125 students, $\frac{2}{5}$ are boys. How many boys are in the class?

    A 25   B 50
    C 75   D 100

21. Kay has 12 peanuts. Alan has four times as many. How many peanuts do they have altogether?

A 16   B 48
C 60   D 72

22. Which numeral is in the **tenths** place of the number 53.04?

A 0   B 3
C 4   D 5

23. For a party, Mother makes 15 patties for every 9 children. How many patties are needed for 63 children?

A 35   B 76
C 85   D 105

24. Perry's average mark on seven tests was 80. He scored a total of 486 marks on the first six tests. How many did he score on the seventh test?

A 11   B 74
C 80   D 81

25. Which one of the following units is **MOST** suitable for measuring the length of your school building?

A centimetre   B metre
C millimetre   D kilometre

26. Time in Australia is eleven hours ahead of the time in St. Vincent. The National Netball team of St. Vincent starts a game at 10:30 am in Australia on March 17. What time is this in St. Vincent?

A 9:30 p.m. March 18   B 10:30 p.m. March 17
C 10:30 p.m. March 16   D 11:30 p.m. March 16

27. 5:00 a.m. can be written as:

A   050 hours   B 0170 hours
C 0500 hours   D 1700 hours

28. Sherry earns $10.00 per hour. Yesterday she worked from 8:05 a.m. to 12:05 p.m. How much money did she earn?

A $30.00   B $40.00
C $80.50   D $120.50

29. A car travels at 36 km per hour. What distance, in km, did it cover in 15 minutes?

A   9   B   21
C 51   D 540

30. How many 25 cents are there in $3.75?

A 13   B 14
C 15   D 16

31. Carl spent $\frac{3}{8}$ of his money on a walkman. The amount he spent was $150.00. How much money did he have at first?

A $250.00   B $400.00
C $450.00   D $1200.00

32. June has $15.00. Luke has **TWICE** as much as June. Jay has **HALF** as much as June. Which one of the following statements is **TRUE**?

A   Luke has less money than June
B   Luke has three times as much as Jay
C   Jay has the least amount of money
D   Jay and June have the same amount of money

33. A package of rice weighs 500 grams, a jar of jelly weighs 450 grams and a bag of potatoes weighs 1.5 kg. What is the **TOTAL** mass, in grams, of the three items?

A 2450 g   B   6500 g
C 9650 g   D 11000 g

34. Jeffrey Osborne came to St. Vincent for Jazz festival. He changed the amount of US $1000.00 to EC$.

US $1.00 = EC $2.67

How much money in EC$ did he receive?

A $26.70   B $267.00
C $1002.67   D $2670.00

35. Tickets to the school fair cost $2.50 each for adults and half price for children. How much money should a family of 2 adults and 1 child pay to enter the fair?

A $5.00   B $6.25
C $7.25   D $7.50

36. Kirt rented a car with a full tank of gasoline. The diagram below shows the tank's indicator after he used the car. How much gasoline was used?
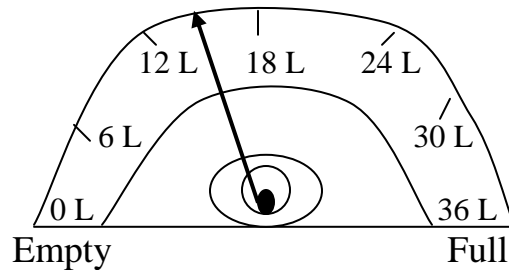

A 15 L   B 18 L
C 21 L   D 24 L

37. LIAT allows travellers 20 kg of luggage free of charge (1 kg = 2.2 pounds). How many pounds of luggage can you take free of charge?

A 40   B 40.2
C 42   D 44

38. Jory deposited $450 in a bank, which adds simple interest at 5% per annum. How much interest does Jory earn in 2 years?

A $22.50   B $45.00
C $405.00   D $495.00

39. The diagram below shows six identical blocks and a barrel placed on opposite sides of a scale so that they balance. If the mass of the barrel is 12 kg, what is the mass, in kg, of each block?
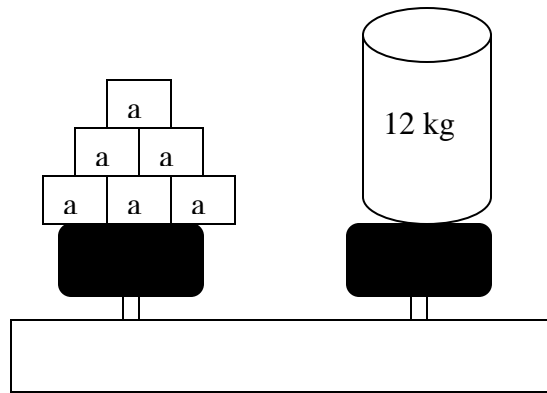
A $12/a$

B $12 + 6$

C $12/6$

D $12 + 6a$

40. A teaspoon holds 5 millilitres (ml). How many teaspoons of medicine can be obtained from a bottle that contains 0.12 litres (l)?

A 2
C 60

B 24
D 600

41. What time is this clock showing?
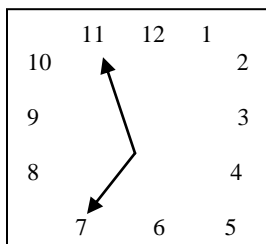
A 6:55
C 7:11

B 7:05
D 11:07

42. Notebooks cost $7.50 each and pens cost 50 cents each. How many pens can be bought for the price of 2 notebooks?

A   3   B   30
C 100   D 300

43. A jug contained 6 $\frac{1}{4}$ litres (l) of milk. Mother used 2 $\frac{3}{8}$ litres for breakfast. How much milk remained in the jug?

A 3 $\frac{1}{8}$ L   B 3 $\frac{7}{8}$ L

C 4 $\frac{1}{4}$ L   D 4 $\frac{1}{2}$ L

44. 20 eggs are needed to make 2 black cakes. How many eggs are needed for 5 such cakes?

A 25   B   40
C 50   D 100

45. George left home at 7:30 a.m. for school. School begins at 8:45 a.m. George was 10 minutes late. How long did George take to get to school?

A 1 hr 25 mins   B 1 hr 55 mins
C 3 hrs 25 mins   D 4 hrs 55 mins

46. The diagram below shows a square plot of land. What is the length of one side?

Area
169 m²
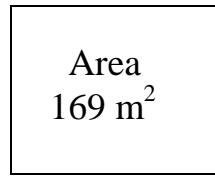
A 13 m

B 42 ¼ m

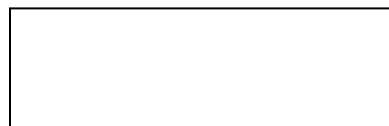C 208 m

D 676 m

47. Four villages on a road map are represented by the points W, X, Y and Z. On the map, 1 cm represents 10 km.

X

4 cm

3 cm

Z
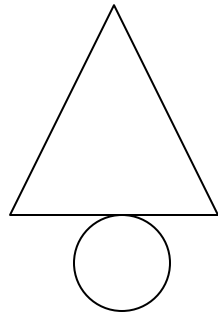
W

2 cm

Y
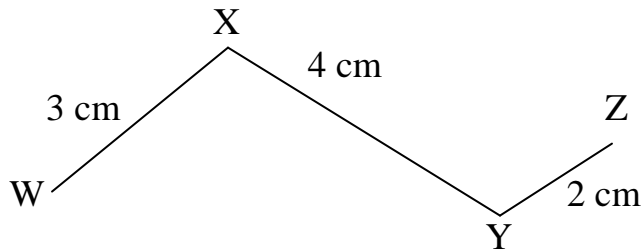
What is the actual distance in km along the road from W to Z?

A   9 km

B   90 km

C 900 km

D 9000 km

48. The diagram below represents a rectangular field, 13 metres in length. Its width is 6 metres shorter than the length. What is the perimeter?

A 40 m

B 38 m

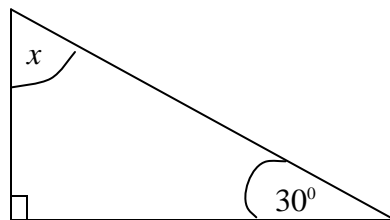C 20 m

D 19 m

49. The shape below can be folded to form a

A cone   B cube
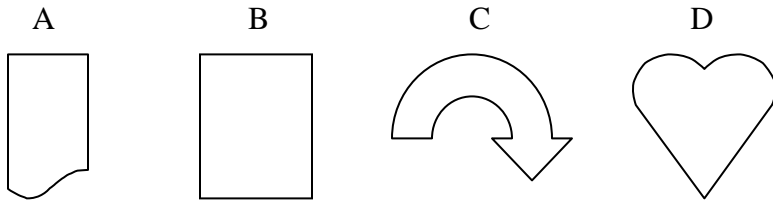C cuboid   D cylinder

50. In a circle, which part is the longest?

A radius   B chord
C diameter   D circumference

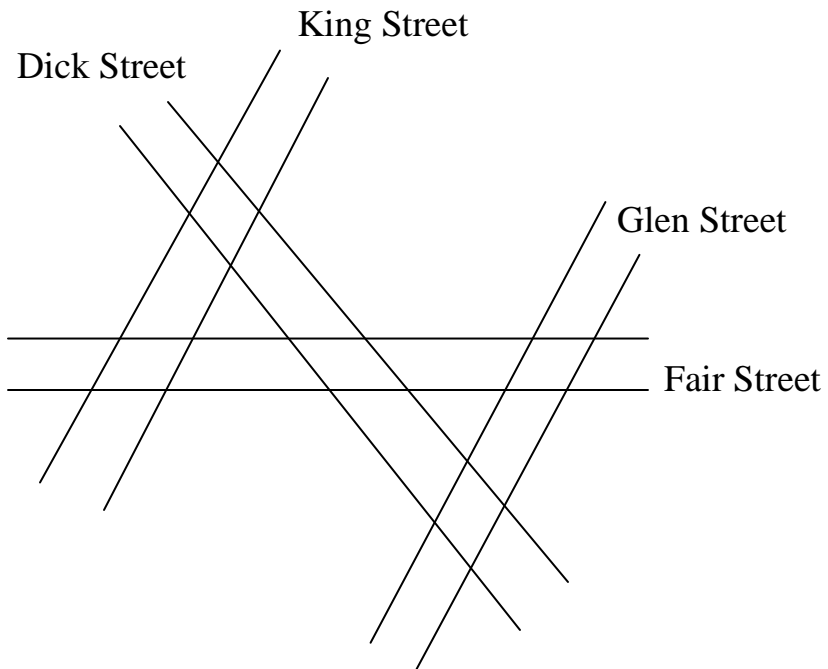51. In the triangle below what is the value of the angle marked x?

A 30^0 B 60^0
C 90^0 D 120^0

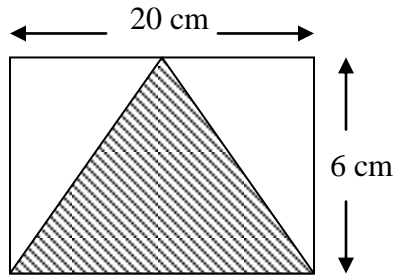52. Which figure below appears to have a **SINGLE** line of symmetry?

A   B   C   D

53. A map of four streets is shown below. Which 2 streets appear to be parallel?

King Street

Dick Street

Glen Street

Fair Street

A Fair and Glen Streets
B King and Glen Streets
C King and Fair Streets
D Dick and Fair Streets

54. What is the area of the shaded triangle below?

20 cm

6 cm

A 30 cm^2 B   40 cm^2
C 60 cm^2 D 120 cm^2

55. Which one of the following statements about a square and an equilateral triangle is **TRUE**?

A They both have angles of 90^0
B The angles in each shape add up to 180^0
C Each of the two shapes has two parallel lines
D Each of the two shapes has all its sides equal

56. There are 300 houses in Dora's village. The pie chart below shows the proportion of each type. How many board houses are there in the village?
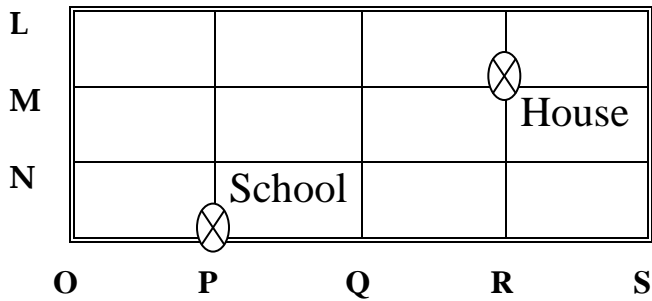

Wall

Board

Galvanise
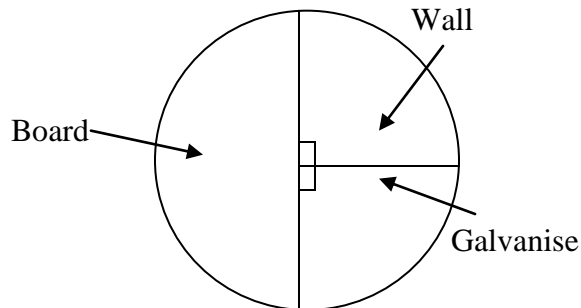
A   75   B 100
C 150   D 300

57. Below is a chart of the favourite pets of a group of students. What fraction of the group prefers fish?

Favourite pets	Number
Cat	12
Dog	24
Fish	16
Rabbit	12

A $\frac{1}{4}$

B $\frac{1}{2}$

C $\frac{1}{3}$

D $\frac{3}{4}$

58. The map shows the locations of Zaca's house and school in the village. What are the coordinates of Zaca's house and school?
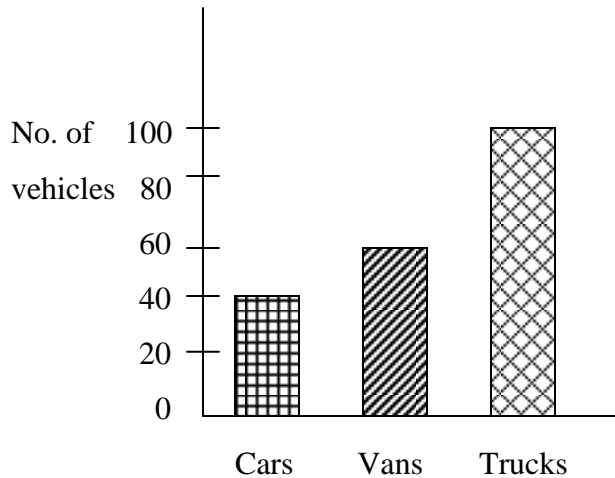

	School	House
A	(PN)	(RM)
B	(OP)	(OR)
C	(ON)	(RM)
D	(MR)	(NP)

Use the information below to answer items 59 and 60.

Cars, vans and trucks are the only vehicles in a farming village.

The graph shows the number of each type.

No. of vehicles

100
80
60
40
20
0

Cars   Vans   Trucks

59. How many vehicles are there in the village?

A   20   B   50
C   100   D   200

60. The most likely reason why trucks are the most popular vehicles in the village is

A   trucks are much cheaper to buy.
B   all the men prefer to drive trucks.
C   trucks are most suitable to transport farm goods.
D   cars and vans are too expensive.