MINISTRY OF EDUCATION

ST. VINCENT AND THE GRENADINES

COMMON ENTRANCE EXAMINATION

2011

MATHEMATICS

TEST CODE: 012A

Time allowed: 1 hour 30 minutes

Instructions:

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.

   Please use a No. 2 HB pencil

3. **Do not take any paper out of the examination room.**
   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 $1409 + 275 + 83 =$

A 1608 B 1617 C 1767 D 3589

2 $567 - 180 =$

A 387 B 420 C 427 D 647

3 $525 \div 5 =$

A 15 B 105 C 150 D 1005

4 $650 \times 4 =$

A 2400 B 2420 C 2600 D 4220

5 How many square numbers are there between 0 and 30?

A 2 B 3 C 4 D 5

6 What is 25% of 100?

A 25 B 100 C 250 D 1000

7 What is 3873 rounded to the nearest 100?

A 390 B 3800 C 3870 D 3900

8 What must be subtracted from 3.25 to leave 1.78?

A 1.47 B 2.47 C 2.53 D 5.03

9 $200 \times 0.6 =$

A 1.200 B 12.00 C 120.0 D 1200

10 What is the smallest prime number?

A 1 B 2 C 4 D 9

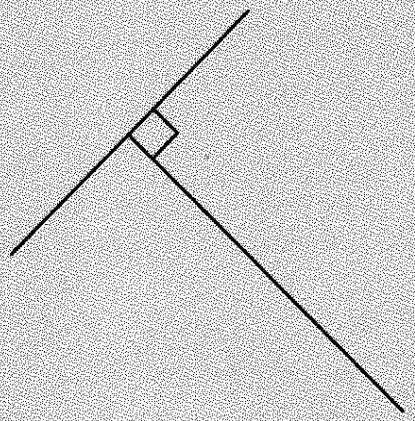
11 Which of the following percentages is equal to 0.6?

A 0.6% B 6% C 60% D 600%

12 Which of these is a reflex angle?

A 60° B 145° C 180° D 245°

13 The pair of lines shown below are



A parallel B perpendicular C symmetrical D equal

14 Which set of numbers below contains only numbers that can be exactly divided by 6 ?

A {6, 12, 24} B {6, 16, 26} C {8, 12, 16} D {8, 14, 24}

15 What is 16 written as a power of 2?

A 2^3 B 2^4 C 2^8 D 2^{16}

16 Calculate $7 + 3 \times 4$

A 84 B 40 C 19 D 14

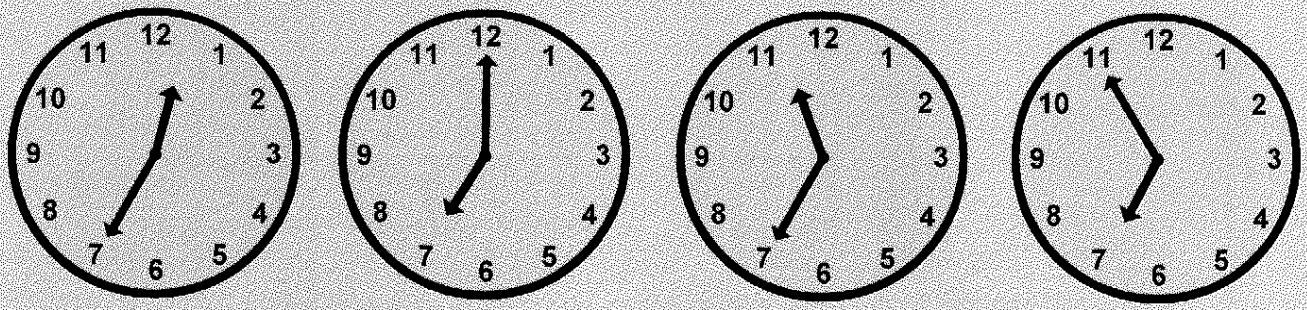
17 The Roman numeral CIX is equal to

A 109 B 111 C 1009 D 1011

18 Which unit of measurement would be **best** to measure the length of a playing field?

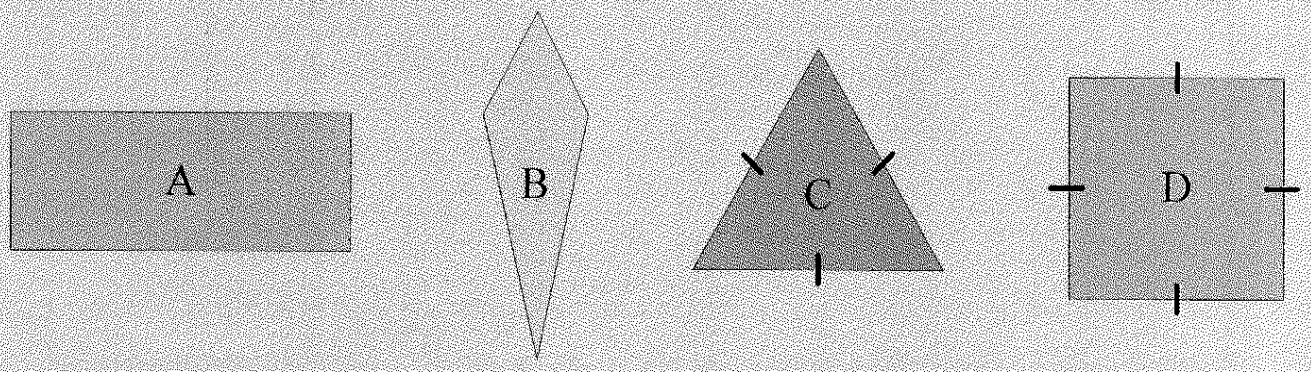
A millimetre B centimetre C metre D kilometre

19 Which of the following clocks is showing 6:55?



A B C D

20 Which of the shapes below has four lines of symmetry?



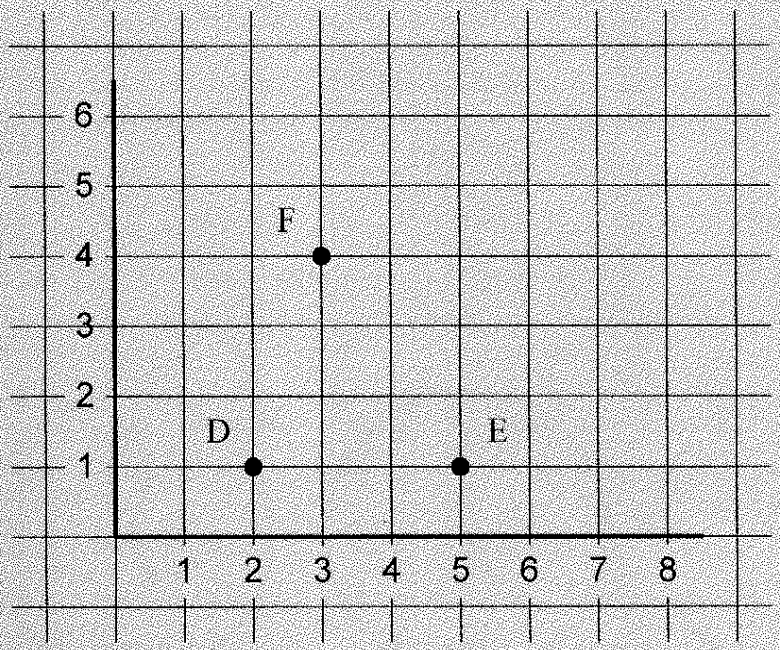
21 What is the rule for the sequence 12, 6, 3, 1.5, ... ?

A divide by 2 B subtract 6 C subtract 3 D divide by ½

22 What is the x-coordinate of the point (5, 6) ?

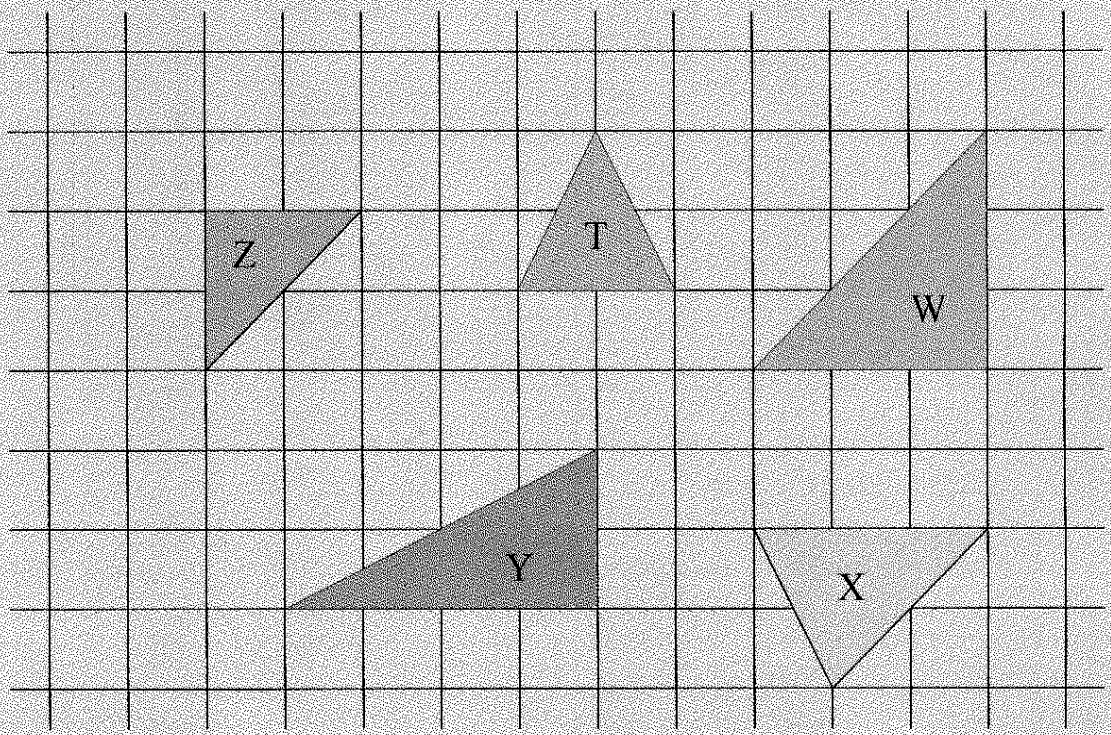
A 1 B 5 C 6 D 11

23 The points D, E and F shown below are three vertices of a parallelogram.
What are the coordinates of the other vertex?



A (6,4) B (4,6) C (5,4) D (4,5)

24 Which of the triangles on the grid below has the same area as the triangle marked T?



A W B X C Y D Z

25 If $\frac{\square}{3} = 6$, then the number missing from the box is

A 2 B 3 C 9 D 18

26 What is the value of the digit that is underlined in the number 125.4<u>7</u>?

A 700 B 70 C 7/10 D 7/100

27 Which operation will complete the problem below?

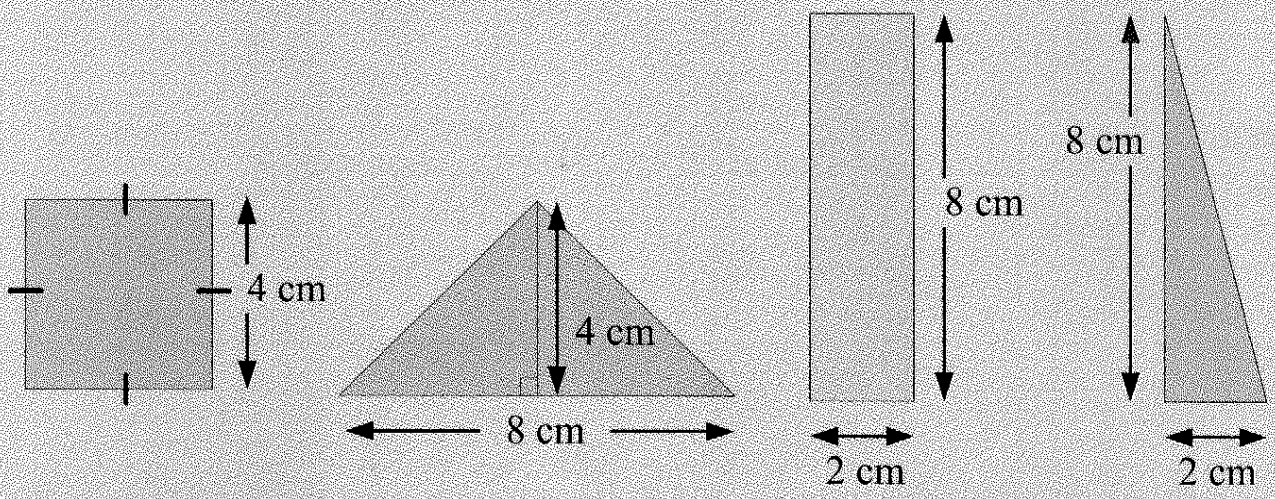
$$1025 \ \square \ 25 = 41$$

A + B − C × D ÷

28 Henry wants to buy the bicycle shown below. How much will he pay for the bicycle?

A $690 B $615 C $600 D $90

29 Which of the following **DOES NOT** have an area of $16cm^2$?



A B C D

30 John is taking a vacation in England. He needs to change his EC dollars into British Pounds. The exchange rate is **£1.00 = EC$4.40**. How many pounds does John get in exchange for EC$1320.00?

A £30 B £300 C £3000 D £30000

31 $\frac{2}{5} + \frac{1}{3} =$

A $\frac{3}{15} + \frac{1}{15}$ B $\frac{2}{15} + \frac{5}{15}$ C $\frac{6}{15} + \frac{1}{15}$ D $\frac{6}{15} + \frac{5}{15}$

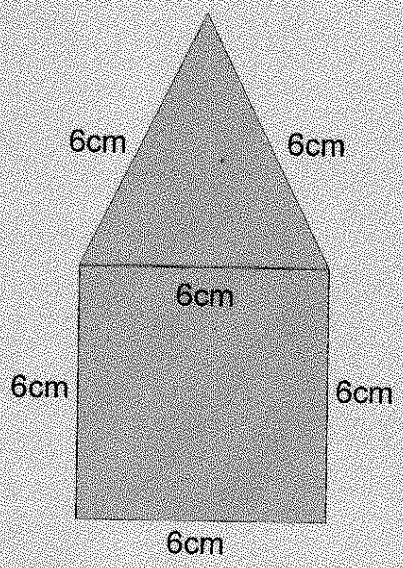
32 Kamal has 60 plums. He eats $\frac{1}{5}$ of them. How many plums does he have left?

A 12 B 20 C 48 D 55

33 Which of the following gives the same result as 0.2×0.7?

A $\frac{1}{2} \times \frac{1}{7}$ B $\frac{1}{2} \times \frac{7}{10}$ C $\frac{1}{5} \times \frac{1}{7}$ D $\frac{1}{5} \times \frac{7}{10}$

34 **Use the diagram below to answer numbers 34 and 35.**



What type of triangle is shown in the diagram?

A Equilateral B Right C Scalene D Obtuse-angled

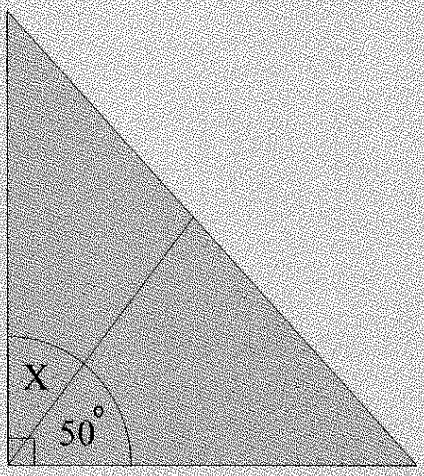
35 What is the perimeter, in centimetres, of the shape?

A 18 B 24 C 30 D 36

36 Subtract three thousand one hundred and forty-two from ten thousand, what will remain?

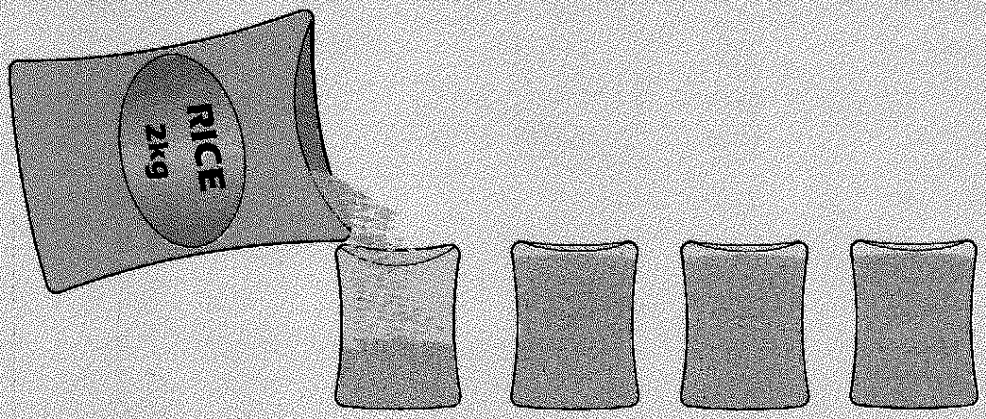
A 6857 B 6858 C 7142 D 13142

37 The value of X in the diagram shown is



A 40° B 90° C 140° D 180°

38



The 2kg bag of rice shown above is poured into 4 plastic bags in equal amounts. How many grams of rice will each bag contain?

A 5 B 50 C 500 D 5000

39 Which of the following is true?

A 100 mm = 1 cm B 100 cm = 1 m

C 100 m = 1 km D 100 cm = 1 km

40

The items in the picture above are on sale. Ellen buys two of the items for a total cost of $9.74. Which two items did she buy?

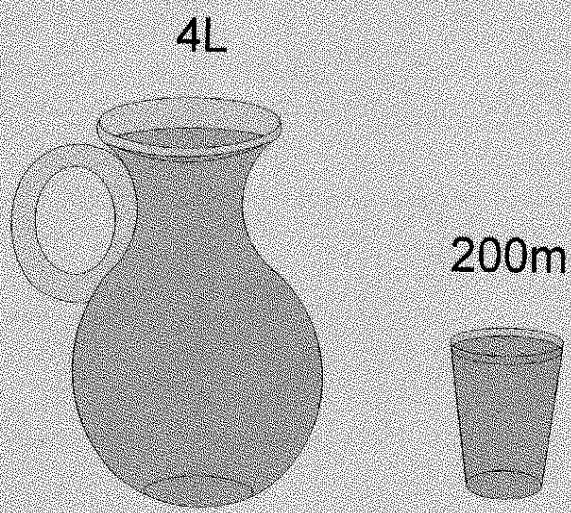
A bag and sunglasses

B book and shirt

C book and bag

D sunglasses and shirt

41



4 litres of water are poured from the jug shown above into a glass which can hold 200ml. How many glasses of water can be taken from the jug?

A 2

B 20

C 200

D 2000

42 John has 15 apples, James has four times as many. How many more apples does James have than John?

A 19 B 45 C 60 D 75

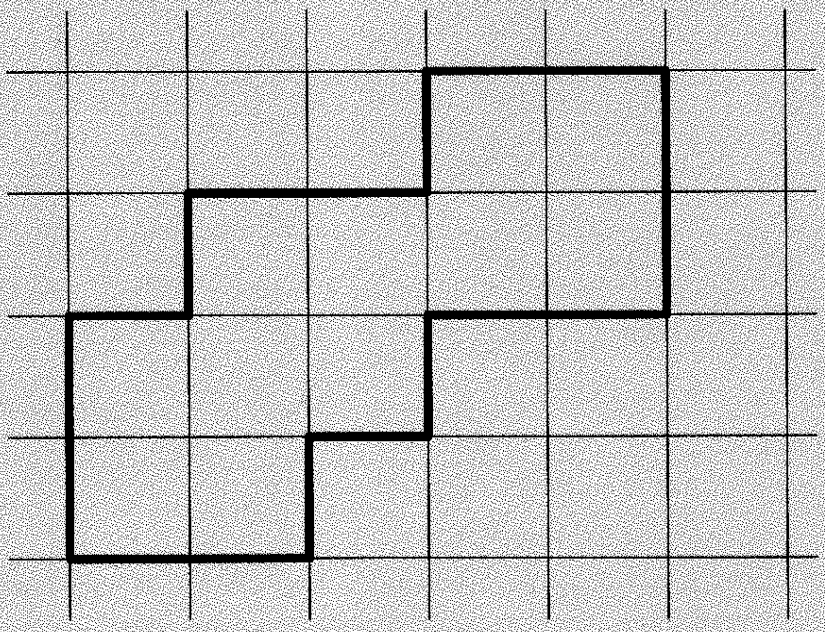
43 12 tins of condensed milk are needed to make 2 tubs of ice cream. How many tins of condensed milk are needed to make 6 tubs of ice cream?

A 18 B 24 C 36 D 144

44 If it is 17:30 now, what time was it 45 minutes ago?

A 16:15 B 16:30 C 16:45 D 18:15

45 If each small square in the diagram has a side of length 1cm, what is the perimeter, in centimetres, of the shape?



A 11 B 12 C 18 D 24

46

Use the numbers below to answer questions 46 and 47.

7, 1, 4, 2, 6, 2, 5, 2, 6

When arranged in order of size, the middle score is

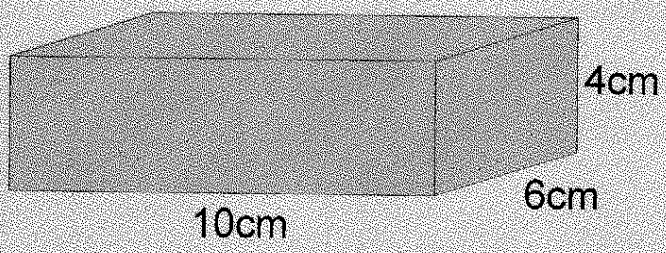
A 1 B 2 C 4 D 6

47 Which score occurs the most?

A 1 B 2 C 4 D 6

48

Use the diagram of the cuboid below to answer questions 48 and 49.



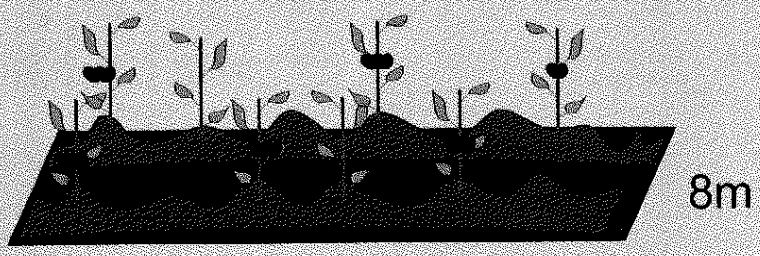
How many vertices does a cuboid have?

A 6 B 8 C 10 D 12

49 The cuboid has dimensions 4cm, 6cm and 10cm. What is its volume, in cm^3 ?

A 240 B 120 C 64 D 20

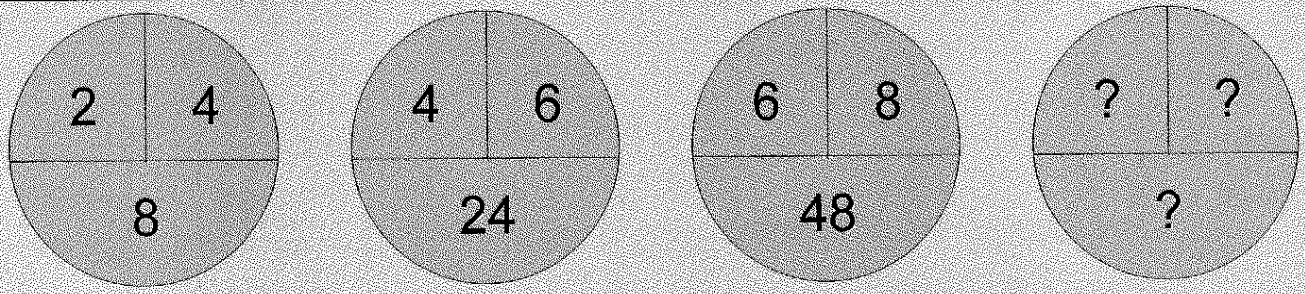
50



The diagram above represents a rectangular garden plot 8 metres wide. Its length is 5 metres longer than its width. What is the area of the plot, in m^2?

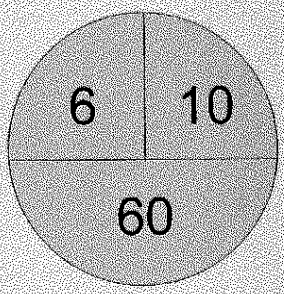
A 26 B 40 C 42 D 104

51

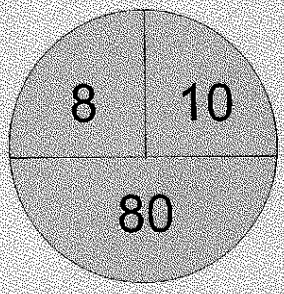


The next diagram which follows the pattern is:

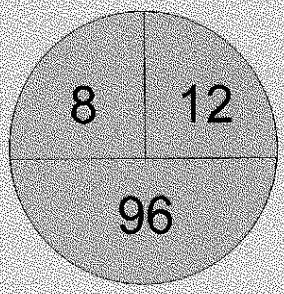
A



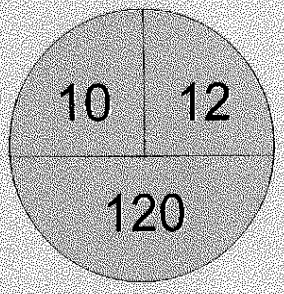
B



C



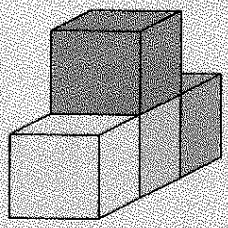
D



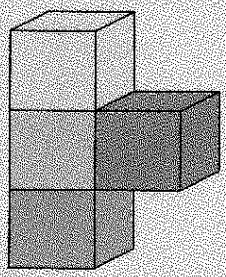
52 The mean average of three numbers is 7. Two of the numbers are 4 and 9. What is the third number?

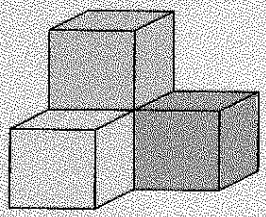
A 6 B 7 C 8 D 9

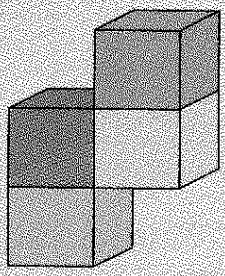
53

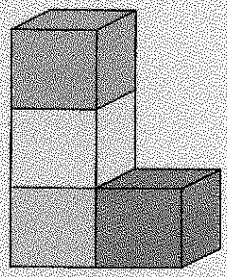


Jane used four cubes to make the shape shown above. Which one of the following diagrams shows the same shape?

A 

B 

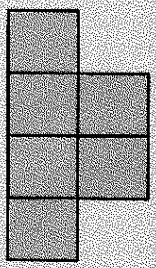
C 

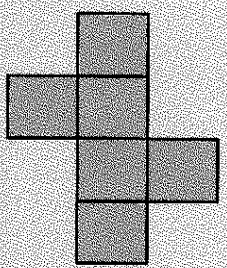
D 

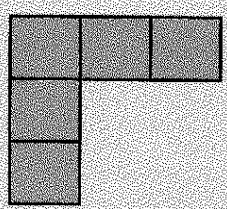
54 A car travels for 2 ½ hours at a speed of 42km/h. How far does the car travel?

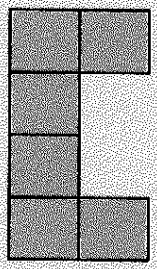
A 96km B 100km C 105km D 140km

55 Which of the following nets could be cut out and folded into a cube?

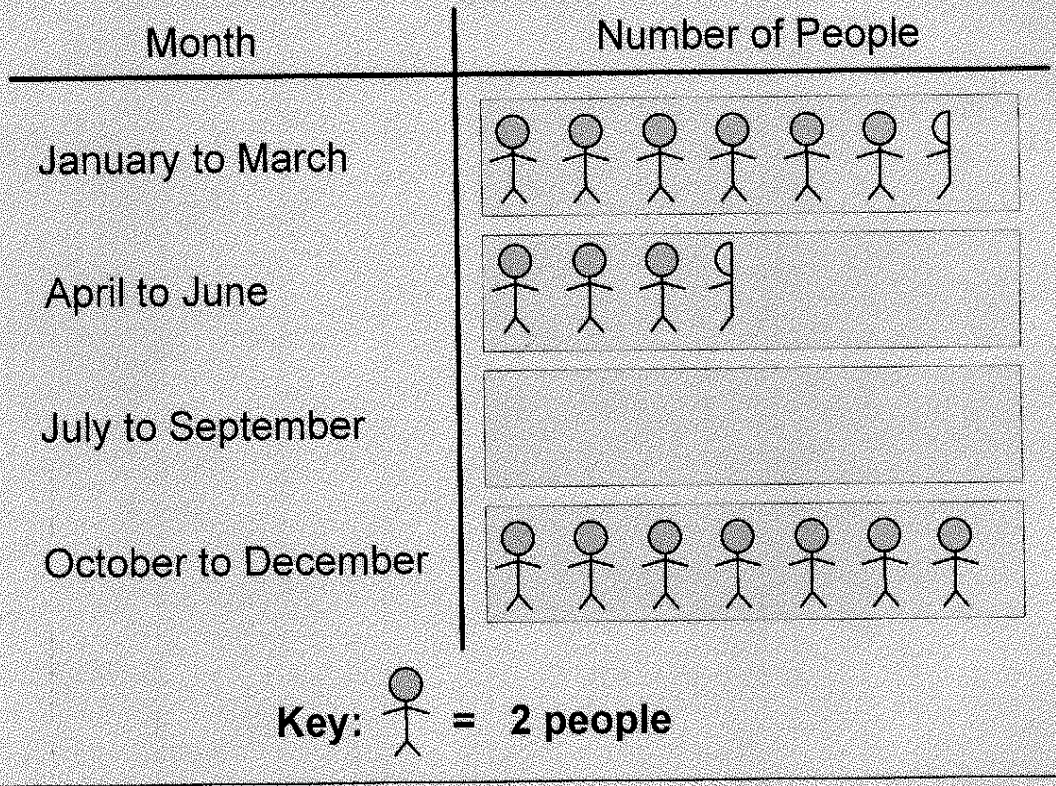
A 

B 

C 

D 

Class 6 did a survey on birthday months. The pictograph below shows the number of children with birthdays in each three months of the year. Use the pictograph to answer questions 56 , 57 and 58 .



56 18 children had birthdays in July, August and September. How many stick people should be drawn on the pictograph to represent these people?

A 3 B 9 C 17 D 18

57 How many people have a birthday before July?

A 3 B 10 C 18 D 20

58 Nobody has a birthday in October. Six people have a birthday in November. How many people have a birthday in December?

A 1 B 4 C 6 D 8

The frequency table below shows the daily attendance of students in Miss Smith's class for a week. Use the table to answer questions 59 and 60.

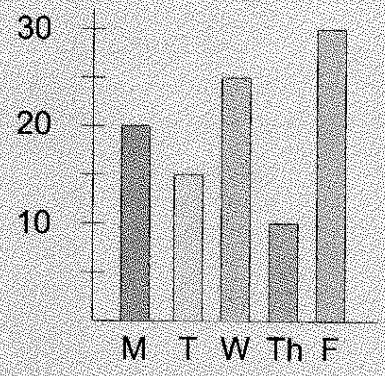
Days of the week	Number of students present
Monday	20
Tuesday	15
Wednesday	25
Thursday	10
Friday	30

59 What is the average daily attendance for the week?

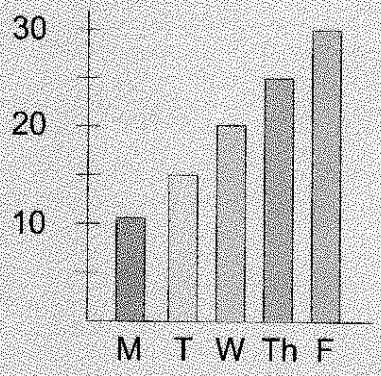
A 10 B 15 C 20 D 25

60 Which bar graph below represents the information given?

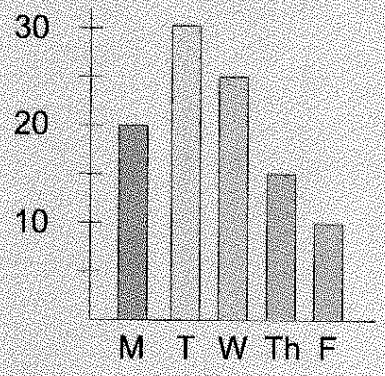
A



B



C



D