KEY SKILLS

APPLICATION OF NUMBER

Level 1

Question Paper

EXEMPLAR 2

WHAT YOU NEED

- This Question Paper
- An Answer Sheet
- A ruler marked in mm and cm

You may use a bilingual dictionary
Calculators are NOT permitted

Do NOT open this Question Paper until you are told to by the supervisor

THERE ARE 40 QUESTIONS IN THIS TEST
Total marks available: 40

Try to answer ALL the questions
TIME ALLOWED: 1 HOUR 15 MINUTES

INSTRUCTIONS

- Ensure that your personal details are entered correctly on the Answer Sheet
- Read each question carefully
- Follow the instructions on how to complete the Answer Sheet
- At the end of the test, hand the Question Paper, the Answer Sheet and all notes to the supervisor

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REMEMBER: YOU HAVE 1 HOUR 15 MINUTES TO FINISH THE TEST

Questions 1 to 5 are about planning a celebration.

Lee plans the celebration for 28 people. He wants to make fruit punch. Lee thinks that each person will drink 3 glasses of punch.

1   If Lee is correct, how many glasses of fruit punch should he provide in total?

       A   3

       B   28

       C   56

       D   84

2   Lee has a recipe for fruit punch which makes 15 glasses

FRUIT PUNCH

500ml orange juice

500ml pineapple juice

50ml lemon juice

1l sparkling water

Lee decides to make just enough fruit punch for 75 glasses.

How many millilitres (ml) of lemon juice will he need?

       A   50ml

       B   75ml

       C   250ml

       D   500ml

3   25% of the people at the celebration are vegetarians.

The number of people who are vegetarians is

    A   7

    B   10

    C   21

    D   25

4   Lee asks each person for £3.95 towards the cost.

The approximate calculation he can use to estimate how much he will receive is

    A   28 + £4.00

    B   28 - £4.00

    C   28 × £4.00

    D   28 ÷ £4.00

5   The celebration starts at 6.45 p.m. and finishes at 9.15 p.m.

How long does the celebration last?

    A $1\frac{1}{2}$ hours

    B $2\frac{1}{2}$ hours

    C   3 hours

    D $3\frac{1}{2}$ hours

Questions 6 to 8 are about a nursery school.

The school decides to take 20 children on a trip to the zoo.

6   For safety, the ratio of adults to children must be at least 1 : 4.

      How many adults are required for safety?

            A   1

            B   4

            C   5

            D   6

7   The group goes to the zoo in cars. Each car can hold 4 people.

      How many cars would they need altogether?

            A   5

            B   6

            C   7

            D   10

8   The leader writes a cheque for the entrance tickets.

      The cheque is for one hundred and four pounds and four pence.

      This amount in figures is

            A   £104.04

            B   £104.4

            C   £140.40

            D   £1 004.4

Questions 9 to 13 are about the weather in Cyprus.

A holiday brochure advertises a holiday in Cyprus. It shows information about the temperatures and hours of sunshine.

The table below shows the daily hours of sunshine each month.

Use the information in the table for questions 9 and 10.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Daily hours of sunshine	5	7	8	9	10	11	12	10	9

9   What is the range of the daily hours of sunshine over the months shown?

      A   5

      B   7

      C   9

      D   12

10   What is the mean of the daily hours of sunshine for the months shown?

      A   5

      B   9

      C   12

      D   81

The chart below shows the mean daytime temperature each month in degrees Celsius.

Use this chart for questions 11 to 13.

TEMPERATURES IN CYPRUS

A bar chart showing mean daytime temperatures by month. The vertical axis ranges from 0 to 35. Values: JAN 17, FEB 18, MAR 21, APR 23, MAY 27, JUN 32, JUL 33, AUG 32, SEP 27, OCT 24, NOV 21, DEC 16. Horizontal axis labelled Month.
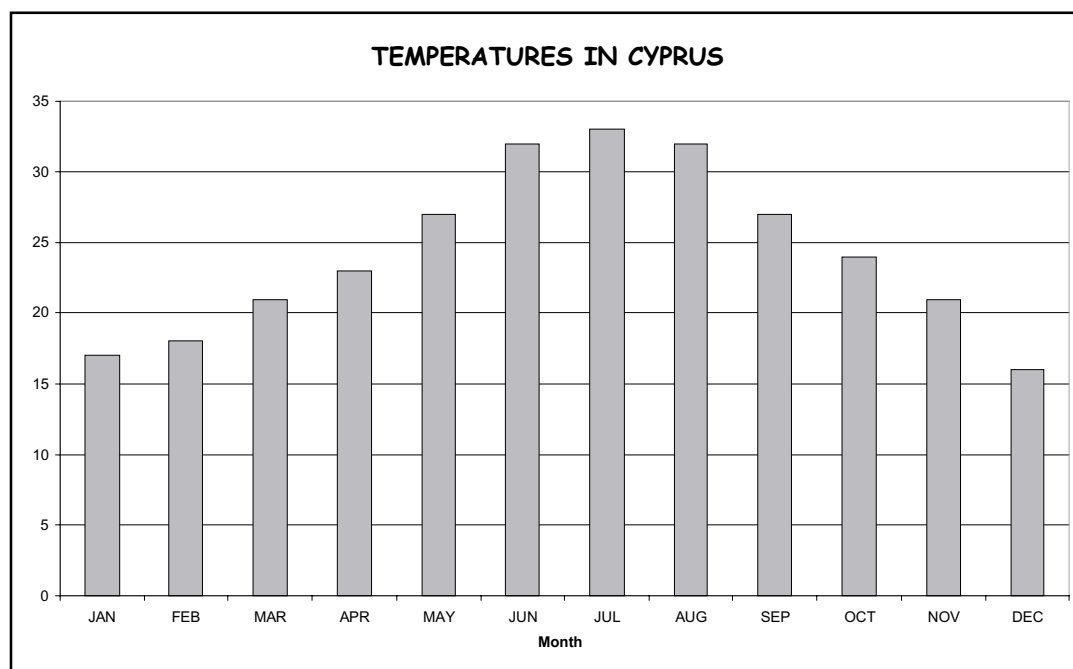
11   The missing label on the vertical axis is

      A   Temperatures in °C

      B   Temperatures in °F

      C   Months of the year

      D   Weather

12   What is the coldest month of the year?

      A   January

      B   February

      C   November

      D   December

13 For how many months of the year is the mean temperature above 20°C?

      A   5

      B   8

      C   9

      D   12

Questions 14 and 15 are about posting letters and parcels.

14 A letter is weighed at the post office and gives the reading shown on the diagram.
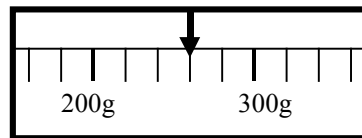
How much does the letter weigh?

      A   203g

      B   230g

      C   260g

      D   280g

15 Four parcels weigh 1.067kg, 1.6kg, 1. 67kg and 1.607kg.

Which is the heaviest parcel?

      A   1.067kg

      B   1.6kg

      C   1.67kg

      D   1.607kg

Questions 16 to 18 are about a veterinary practice.

The table shows all the animals treated by the vets in a week.

Type of animal	Guinea pig	Dog	Cat	Fish	Hamster	Rabbit	Bird
Number treated	7	10	15	3	4	13	8

16   How many cats, dogs and rabbits were treated in total?

        A   10

        B   15

        C   25

        D   38

17   What fraction of the total number of animals treated were cats?

        A $\frac{1}{60}$

        B $\frac{1}{15}$

        C $\frac{1}{4}$

        D $\frac{1}{3}$

18   The vet shows all this information on charts and graphs.
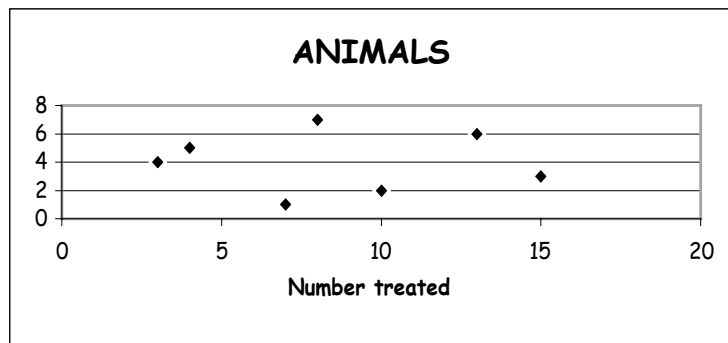
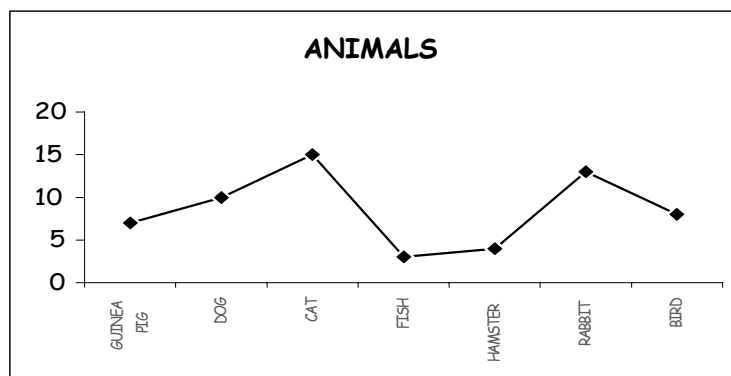Which of the following shows the information most clearly?

A

ANIMALS

B

ANIMALS
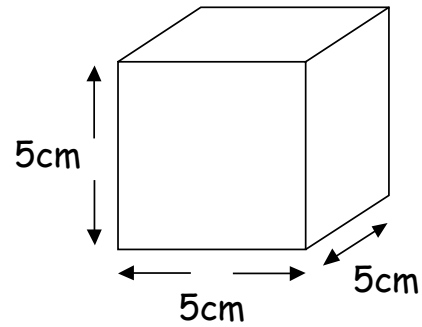

C

ANIMALS

D

ANIMALS
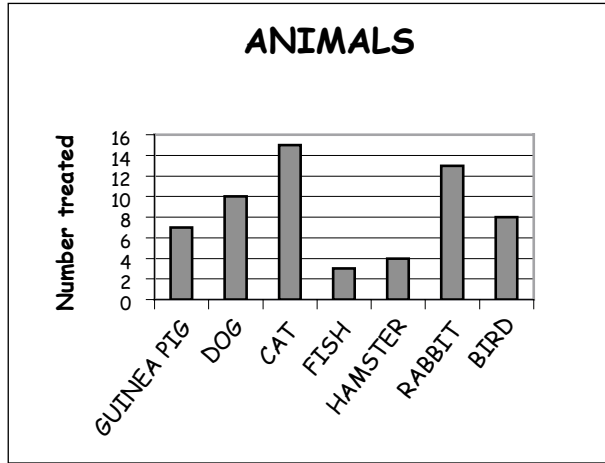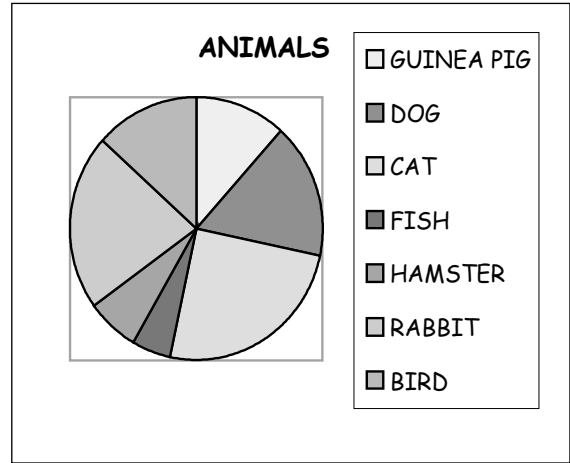
Questions 19 and 20 are about packing chocolates.

A company packs chocolates into small boxes.

This is a diagram of one of the boxes (not drawn to scale).

19   What is the volume of the box?

        A $15cm^3$

        B $25cm^3$

        C $125cm^3$

        D $555cm^3$

20   Each box contains 12 chocolates.
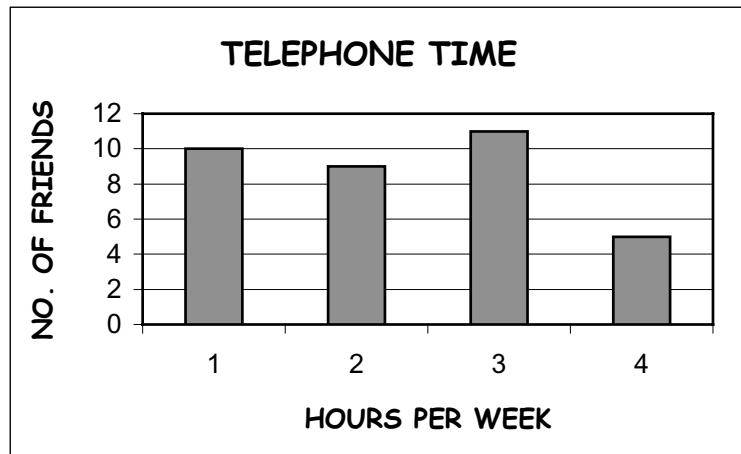
    How many boxes are needed for 1 800 chocolates?

        A   120

        B   150

        C   180

        D   216

Questions 21 and 22 are about mobile phones.

Sue asks her friends how many hours they spend on their mobile phones each week.

She decides to draw a chart to show the information.

TELEPHONE TIME

A bar chart with vertical axis labelled NO. OF FRIENDS (0 to 12) and horizontal axis labelled HOURS PER WEEK (1 to 4). Bar at 1 = 10, bar at 2 = 9, bar at 3 = 11, bar at 4 = 5.

21   How many friends does she ask altogether?

        A   4

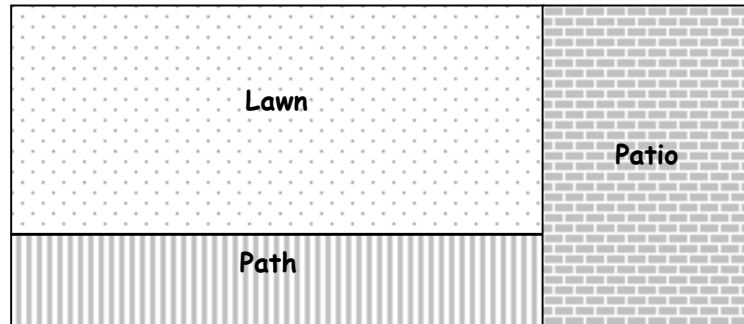   B   12

        C   30

        D   35

22   "**KEY-PHONES**" is offering mobile phones with 25% off the marked price.
Sue decides to buy a phone that is priced at £72 before the reduction.

How much will she actually pay for the phone?

        A   £18

        B   £25

        C   £47

        D   £54

Questions 23 to 26 are about a garden.

This is a scale plan of the garden. The scale is 1cm : 200cm.

23   What is the length on the diagram of the short side of the lawn?

        A   1cm

        B   3cm

        C   4cm

        D   7cm

24   The path is 1.2cm wide on the plan. What is its real width in the garden?

        A   24cm

        B   120cm

        C   240cm

        D   2 400cm

25   The patio has an area of 46.64m². What is this to the nearest square metre?

        A   46m²

        B   46.6m²

        C   46.7m²

        D   47m²

26   One packet of grass food will cover 12m^2.

The area of grass is 84m^2.

What fraction of the grass will one packet cover?

A $\frac{84}{12}$

B $\frac{1}{84}$

C $\frac{1}{12}$

D $\frac{1}{7}$

27   Four people hold a car boot sale. They make a profit of £121.76.
They want to share the money out equally.
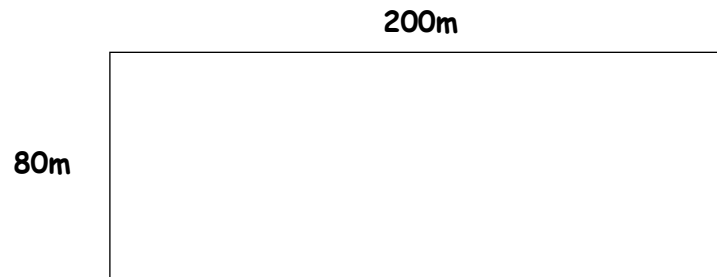
Which calculation do they need to do?

A   4 × £121.76

B   4 ÷ £121.76

C   £121.76 ÷ 4

D   £122 ÷ 4

Questions 28 to 30 refer to the plans for a sports day at Grange Athletics Club.

The Club's sports field measures 200 metres long and 80 metres wide.

200m

80m

28   The total area of the field is

A   280m²

B   360m²

C   1 600m²

D   16 000m²

29   Dan draws a scale drawing of the field. He chooses a scale of 1mm : 1m.

What will the length of the field measure on the scale drawing?

A   20mm

B   80mm

C   20cm

D   200cm

30   The groundsman needs to fence off a rectangular area of 72 square metres for the high jump. The length must be 12 metres.

How wide must it be?

A   6m

B   8m

C   12m

D   24m

Questions 31 to 33 are about how many people attend football matches.

In 1996, the crowd at the semi-final match of Euro 96 was 34 236.
By 2000, the crowd at the semi-final had increased by 2 500.

31   The crowd in 2000 rounded to the nearest 100 was

       A   36 700

       B   36 740

       C   36 800

       D   37 000

32   45 000 people went to the Euro 2000 football final.   About 20% were under 16.

       Approximately how many people were under 16?

       A   2 000

       B   4 500

       C   9 000

       D   25 000

33   The largest ever crowd at a football match was 199 000 people.

       How is this number written in words?

       A   one hundred and ninety-nine million

       B   one million nine hundred thousand

       C   one hundred and ninety-nine thousand

       D   nineteen thousand nine hundred
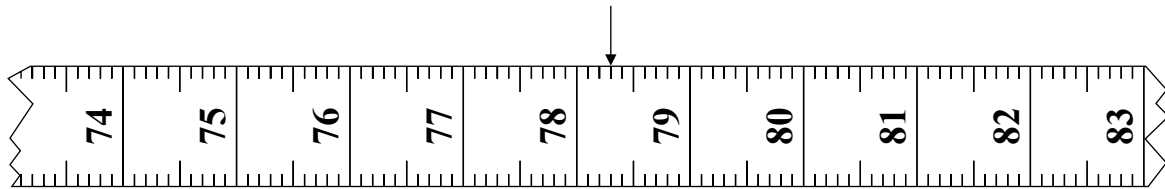
Questions 34 to 40 are about a local gym.

Stuart joins the gym to get fit and to lose weight.
Hassim, the gym instructor, weighs him. The scales weigh in metric units.

34   The reading is 85. How much does Stuart weigh?

      A   85lb

      B   85m

      C   85kg

      D   85km

35   Next, Hassim measures Stuart's waist using a tape measure.

    What is the reading on the tape measure?

      A   78.0cm

      B   78.3cm

      C   79.0cm

      D   79.7cm

36   Stuart decides to become a full member of the gym. It costs £36.50 a month.

    How much will the gym cost him for a year's membership?

      A   £36.50

      B   £365.00

      C   £438.00

      D   £4 380.00

37   Suli, the gym manager, pays 4 cheques into the bank.
     The amounts are £438.00, £4 380, £36.50 and £365.

     What is the total amount paid in?

          A   £4 116.50

          B   £5 183.50

          C   £5 219.50

          D   £52 195

38   Over a year, the gym has 7 683 visitors.
     To the nearest 10 this is

          A   7 600

          B   7 680

          C   7 682

          D   7 690

39   The gym needs a new carpet for the reception area.
     Which units are normally used to measure the area of a carpet?

          A   yards

          B   square inches

          C   metres

          D   square metres

40   After 6 weeks Stuart is much fitter.
      At the start of the 6 weeks he could run 5km in 24 minutes 10 seconds.
      At the end of 6 weeks, running the same distance takes him 21 minutes 25 seconds.

      He thinks he has improved by 2 minutes 45 seconds.

      Which calculation can he use to check if this is correct?

      A   21min 25s ÷ 2min 45s

      B   21min 25s + 2min 45s

      C   21min 25s x 2min 45s

      D   21min 25s – 2min 45s

END OF TEST