

START HERE

MARK  
✓ or X

Q. 1–5

addition and subtraction problems

- 1

Add together seven million, twelve million and two hundred thousand and four.
- 2

What number is equal to the sum of four thousand and nineteen and seven thousand five hundred and ten?
- 3

A number is as much above 6050 as 3402 is below it. What is that number?
- 4

For a school concert, 390 tickets were sold at £1. A further 758 were sold at £2 and 428 at £3. How many people were at the concert?
- 5

If I take 93 plums from a basket there are 125 left. How many were in the basket at first?

1☐

2☐

3☐

4☐

5☐

Q. 6–10

timetables

This is Isha’s timetable for each school day after morning assembly.

|       | 0920 to 1000 | 1000 to 1040 | 1040 to 1100 |   | 1120 to 1200 |   | 1330 to 1400 | 1400 to 1515 |
|-------|--------------|--------------|--------------|---|--------------|---|--------------|--------------|
| Mon   | Maths        | French       | English      | B | History      | L | P.E.         | Science      |
| Tues  | Maths        | Geography    | English      | R | Music        | U | French       | Games        |
| Wed   | English      | French       | Maths        | E | Library      | N | English      | Swimming     |
| Thurs | Science      | Maths        | French       | A | English      | C | I.C.T.       | I.C.T.       |
| Fri   | Maths        | English      | English      | K | R.S.         | H | P.E.         | Drama        |

- 6

If Isha goes into assembly at 0855, how long is her school day?

h min
- 7

How much time each week is spent in English classes?

h min
- 8

How much time each week is devoted to Maths?

h min
- 9

How much longer is the morning session (starting at 0855) than the afternoon session?

h min
- 10

How much time each week is allowed for P.E., games and swimming?

h min

6☐

7☐

8☐

9☐

10☐

Q. 11–15

writing large numbers

Write each of these numbers in figures.

- 11

four million and five
- 12

five million five hundred and two
- 13

eight million six hundred and two thousand and sixty-two
- 14

nine and three-quarter million
- 15

one hundred and thirty-six million four hundred thousand seven hundred and thirty-five

11☐

12☐

13☐

14☐

15☐

MARK

MARK  
✓ or X

**Q. 16–20**

mass  
problems

- 16** How many tonnes are in 69 750 kg? \_\_\_\_\_ t
- 17** What must be added to 748 kg to make  $3\frac{1}{8}$  tonnes? \_\_\_\_\_ t \_\_\_\_\_ kg
- 18** Four crates weigh  $70\frac{1}{2}$  kg,  $46\frac{3}{8}$  kg,  $82\frac{3}{10}$  kg and 39.6 kg. What is their total mass? \_\_\_\_\_ kg \_\_\_\_\_ g
- 19** Subtract 0.9 kg from  $3\frac{1}{4}$  kg and multiply your answer by three. \_\_\_\_\_ kg \_\_\_\_\_ g
- 20** At a summer camp  $4\frac{1}{2}$  kg of casserole was cooked for 25 children. How much casserole did each child receive? \_\_\_\_\_ g

**16** ☐

**17** ☐

**18** ☐

**19** ☐

**20** ☐

**Q. 21–25**

decimal  
problems

- 21** How many seconds are there in 0.75 of one minute? \_\_\_\_\_ s
- 22** How many centimetres are there in 0.01 of one metre? \_\_\_\_\_ cm
- 23** How many minutes are there in 0.3 of half an hour? \_\_\_\_\_ min
- 24** How many pence are there in £1.26? \_\_\_\_\_ p
- 25** How many minutes are there in 0.7 of  $1\frac{1}{2}$  hours? \_\_\_\_\_ min

**21** ☐

**22** ☐

**23** ☐

**24** ☐

**25** ☐

**Q. 26–30**

percentage  
problems

- 26** What is 50% of £45? £ \_\_\_\_\_
- 27** What is 15% of 2 tonnes? \_\_\_\_\_ kg
- 28** What is 30% of 30 kilograms? \_\_\_\_\_ kg
- 29** What is 90% of 80? \_\_\_\_\_
- 30** What is 30% of 70 metres? \_\_\_\_\_ m

**26** ☐

**27** ☐

**28** ☐

**29** ☐

**30** ☐

**Q. 31–35**

long  
division

- 31**  $28 \overline{) 21\ 168}$
- 32**  $42 \overline{) 36\ 246}$
- 33**  $55 \overline{) 21\ 120}$
- 34**  $39 \overline{) 9399}$
- 35**  $62 \overline{) 53\ 134}$

**31** ☐

**32** ☐

**33** ☐

**34** ☐

**35** ☐

MARK

MARK  
✓ or ✗

Q. 36–40  
using money

Work out the total for each line of this receipt. Then check that they all add up to the total given.

Paint Pots and Power Tools

DIY Stores

£ . p

36

12 litres varnish at £2.47 per litre

=

37

12 litres paint at £2.26 per litre

=

38

18 bags of nails at £6.42 per bag

=

39

7 dozen tubes of glue at 54p each

=

40

6 packets of seeds at £2.39 each

=

Total =

2 3 2 . 0 2

36 ☐  
37 ☐  
38 ☐  
39 ☐  
40 ☐

Q. 41–45  
sequences

Write the next two terms in each of these sequences.

41

110

100

91

83

42

144

121

100

81

43

1

6

36

216

44

2036

1018

509

$254\frac{1}{2}$

45

7

$6\frac{1}{4}$

$5\frac{1}{2}$

$4\frac{3}{4}$

41 ☐  
42 ☐  
43 ☐  
44 ☐  
45 ☐

Q. 46–50  
time problems

46

A lighthouse beam flashes every 12 seconds.  
How many times will it flash in a day?

47

Adam leaves Leeds at 0815 and arrives in Birmingham  
 $3\frac{2}{5}$  h later. At what time does he arrive?

48

How many seconds are in  $2\frac{1}{4}$  h?

s

49

A machine produces one pencil every 4 seconds.  
How many will it produce between 0900 and 1830?

50

How many days are there in the first three months  
of a leap year?

d

46 ☐  
47 ☐  
48 ☐  
49 ☐  
50 ☐

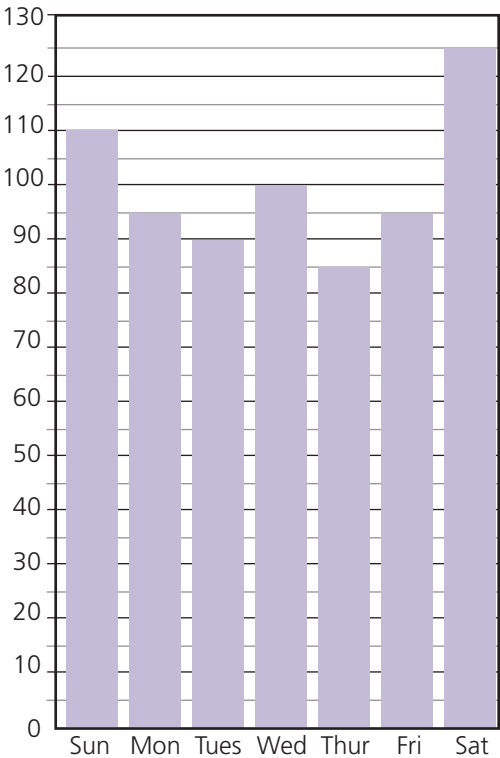
MARK

MARK  
✓ or X

Q. 51–55

bar charts

This chart shows the number of cans of lemonade sold by a corner shop in the course of a week.



- 51 How many more cans were sold on Saturday than on Thursday? \_\_\_\_\_
- 52 How many cans altogether were sold on the two busiest days? \_\_\_\_\_
- 53 How many cans were sold altogether in the week? \_\_\_\_\_
- 54 What fraction of the week's total was sold on Wednesday? \_\_\_\_\_
- 55 What was the average number of cans sold each day? \_\_\_\_\_

51 ☐

52 ☐

53 ☐

54 ☐

55 ☐

Q. 56–60

money problems

- 56 My insurance costs £693 for 18 months. How much do I pay each month? £ \_\_\_\_\_
- 57 A charity advertisement said that £100 could save the sight of eight people. How much is this per person? £ \_\_\_\_\_
- 58 What is half the difference between £74.68 and £35.22? £ \_\_\_\_\_
- 59 What sum of money added to itself is equal to half of £40? £ \_\_\_\_\_
- 60 If you share £220.80 equally among twelve people, how much will each get? £ \_\_\_\_\_

56 ☐

57 ☐

58 ☐

59 ☐

60 ☐

MARK

MARK  
✓ or X

**Q. 61–65**

24-hour  
clock

Change these a.m. and p.m. times to 24-hour times.

**61** 12.04 a.m.

\_\_\_\_\_

**61** ☐
**62** 1.00 a.m.

\_\_\_\_\_

**62** ☐
**63** 11.45 a.m.

\_\_\_\_\_

**63** ☐
**64** 2 p.m.

\_\_\_\_\_

**64** ☐
**65** 4.00 p.m.

\_\_\_\_\_

**65** ☐
**Q. 66–70**

mean,  
median  
mode,  
and range

Look at the group of numbers below.

18      27      36      18      26

**66** What is the mean of these numbers?

\_\_\_\_\_

**66** ☐
**67** What is the mode?

\_\_\_\_\_

**67** ☐
**68** What is the median?

\_\_\_\_\_

**68** ☐
**69** What is the range?

\_\_\_\_\_

**69** ☐
**70** Replace one of the 18s with 33. What is the new mean?

\_\_\_\_\_

**70** ☐
**Q. 71–75**

measures  
addition and  
subtraction

**71** £74.63 + £59.72 + £64.36 =

£ \_\_\_\_\_

**72**      kg g

27 399

4 063

+ 143 746

\_\_\_\_\_

**73**      l ml

17 642

18 779

+ 3 847

\_\_\_\_\_

**71** ☐
**72** ☐
**73** ☐
**74** Add together  $2\frac{1}{2}$  km,  $14\frac{1}{8}$  km,  $7\frac{1}{5}$  km and 12.6 km.

\_\_\_\_\_ km

**74** ☐
**75** Take 145 minutes from  $4\frac{1}{5}$  hours.

\_\_\_\_\_ h \_\_\_\_\_ min

**75** ☐
**Q. 76–80**

ratio and  
proportion

Ruby is 6, Edward is 8, Claire is 9, David is 14 and Emma is 15. They are given birthday money in the ratio of their ages. In total they receive £156. How much do they each receive?

**76** Ruby

£ \_\_\_\_\_

**76** ☐
**77** Edward

£ \_\_\_\_\_

**77** ☐
**78** Claire

£ \_\_\_\_\_

**78** ☐
**79** David

£ \_\_\_\_\_

**79** ☐
**80** Emma

£ \_\_\_\_\_

**80** ☐

MARK

## Q. 81–85

algebra

Write each of these sentences in the form of an equation,

e.g. If 3 is added to  $x$ , the answer is 15.

$3 + x = 15$

81 number  $a$  is 5 more than 682 6 less than  $b$  is 1383 4 subtracted from  $c$  is equal to 984  $d$  added to 3 gives 785 16 is the result of multiplying  $e$  by 281 ☐82 ☐83 ☐84 ☐85 ☐

## Q. 86–90

measures  
multiplication  
and division

$$\begin{array}{r} \text{£ . p} \\ 372.86 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l ml} \\ 678\ 507 \\ \times 11 \\ \hline \end{array}$$

88 7 h 40 min 55 s  $\times 5 =$  \_\_\_\_\_ h \_\_\_\_\_ min \_\_\_\_\_ s89 22.5 km  $\div 4 =$  \_\_\_\_\_ km90 300.3 kg  $\div 11 =$  \_\_\_\_\_ kg86 ☐87 ☐88 ☐89 ☐90 ☐

## Q. 91–95

perimeters

91 What is the perimeter of this shape?

36 cm<sup>2</sup>

\_\_\_\_\_ cm

92 If the length of a rectangle is three times its 4 cm width, what is its perimeter?

\_\_\_\_\_ cm

93 What is the perimeter of a field  $\frac{3}{4}$  km long and 0.2 km wide?

\_\_\_\_\_ m

94 If the perimeter of a rectangle is 54 cm and its length is 18 cm, what is its width?

\_\_\_\_\_ cm

95 If the perimeter of a rectangle is 6 times its 6 cm width, what is its length?

\_\_\_\_\_ cm

91 ☐92 ☐93 ☐94 ☐95 ☐

## Q. 96–100

probability

There are 52 cards in a pack.

96 If I draw out one card, what is the probability that it will be an ace?

\_\_\_\_\_ in \_\_\_\_\_

97 What is the probability that it will be a red card?

\_\_\_\_\_ in \_\_\_\_\_

98 What is the probability that it will be a black card?

\_\_\_\_\_ in \_\_\_\_\_

99 What is the probability that it will be the three of clubs?

\_\_\_\_\_ in \_\_\_\_\_

100 What is the probability that it will be the three of any suit?

\_\_\_\_\_ in \_\_\_\_\_

96 ☐97 ☐98 ☐99 ☐100 ☐

END OF TEST

SAMPLE PAPER TOTAL MARK