1. On a sheet of stickers there are 5 circles, 2 stars and one rectangle.


How many stickers are there altogether on 4 sheets?

1 mark

Nisha needs 55 circles.
How many sheets of stickers does she need?


1 mark

Ben has 10 sheets of stickers.
How many more circles than rectangles does he have?


1 mark
2. A shop sells scarves and hats.


Ben buys one of the scarves and the $£ 4.50$ hat.
How much change does he get from $£ 20$ ?


Emily buys two scarves and a hat.
What is the most she could pay?
3.


Bottle of milk 39p

cake
29p

Ben buys three bottles of milk and six cakes.
How much does he spend altogether?


2 marks
4. Emily has these coins.


How much more money does Emily need to make exactly £5?


## £

1 mark

Nisha has thirty 5 p coins and twenty 10p coins.
How much money does she have altogether?


1 mark
5.


Emily, Ben and Nisha take part in a sponsored swim to collect money for charity.
Emily collects $£ 2.75$ more than Nisha.

## Ben collects $£ 15$

Nisha collects $£ 7$ less than Ben.

Altogether how much money do the three children collect?

6.

## Small peaches 15p each



Large peaches $25 p$ each

Emily has $£ 5$ to spend on peaches.
She decides to buy only small peaches or only large peaches.

How many more small peaches than large peaches can she buy for $£ 5$ ?

7. $\boldsymbol{m}$ stands for a whole number greater than 10 and less than 20
$\boldsymbol{n}$ stands for a whole number greater than 2 and less than 10
What is the smallest number that $\boldsymbol{m} \times \boldsymbol{n}$ could be?


1 mark

What is the largest number that $\boldsymbol{m}-\boldsymbol{n}$ could be?


1 mark
8. Kate has a piece of ribbon one metre long.

She cuts off 30 centimetres.


How many centimetres of ribbon are left?


1 mark
9. Here are three bags in a shop

A
£11.50

B
£14.65

C
£16.50

How much does bag $B$ cost to the nearest pound?


1 mark

Jamie buys bag A and bag C.
How much change does he get from $£ 40$ ?

10. A torch costs $£ 7.65$

Kate buys a torch and two batteries.


She pays $£ 8.75$ altogether.
How much does one battery cost?

11. A shop sells notebooks and pens.


Hassan bought a notebook and a pen.
He paid $£ 1.10$
Kate bought a notebook and 2 pens.
She paid $£ 1.45$

Calculate the cost of a notebook.

12. Here are some amounts of money.

Circle all the amounts that can be made with three coins.
*

$$
\begin{array}{lllll}
71 p & 72 p & 73 p & 74 p & 75 p
\end{array}
$$

13. 50 children need two pencils each.

There are 20 pencils in a box.


How many boxes of pencils are needed?


1 mark

50 children need one pen each.


## Pens are sold in packs of 4

How many packs of pens need to be bought?


1 mark
14. Jamie, Kate and Hassan run a 50 m race.


Kate's time is 13 seconds.
Jamie finishes 5 seconds before Kate.
Hassan finishes 3 seconds after Jamie.

What is Hassan's time in seconds?


1 mark
15.


Kate and Jamie each have some money.
Altogether they have $£ 1.50$
Kate gives Jamie 10p so that they both have the same amount.
How much money did each have at the start?


2 marks
16. Hassan scores 40 out of 80 in a test.

Kate scores $40 \%$ in the same test.
Who has the higher score?
Circle Hassan or Kate.

Hassan / Kate
Explain how you know.


1 mark
17.


The cost for using a minibus is $£ 1.36$ for each kilometre.
8 friends go on a 114 kilometre journey.
They share the cost equally.
How much does each person pay?


2 marks
18. Kate has some rectangles.

They each measure 16 centimetres by 50 centimetres.


## Not actual size

She makes this design with four of the rectangles.


Work out the lengths $x$ and $y$.

19. Two whole numbers are each between 50 and 70

They multiply to make 4095
Write in the missing numbers.

20. Here is a CD rack.


One rack holds 25 CDs.
David has 83 CDs.
How many racks does he need to hold all his CDs?


1 mark

Lin has 6 racks full of CDs.
How many CDs does Lin have altogether?


1 mark
21.


The diagram shows distances on a train journey from Exeter to York.


How many kilometres is it altogether from Exeter to York?


1 mark

What is the distance from Derby to York rounded to the nearest 10km?


1 mark
22.


A rectangular swimming pool is 25 metres long and 10 metres wide.


## David swims 5 lengths.

Rosie swims 12 widths.
How much further does David swim than Rosie?

23. Draw one line from each calculation on the left to the correct box on the right.

One has been done for you.

24. These are the prices in a shoe shop.

boots
£45.50

sandals
£12.75

trainers
£34.99

How much more do the boots cost than the trainers?


1 mark

Rosie buys a pair of trainers and a pair of sandals.
How much change she gets from $£ 50$ ?

25. Here is a number line.

Estimate the number marked by the arrow.

26. Four large circles and five small circles fit exactly inside this rectangle.


Not actual size
The diameter of a large circle is $\mathbf{1 7 . 5}$ centimetres.
Calculate the diameter of a small circle.

27.


These are the radio programmes one morning.

| $7: 00$ | Music show |
| :--- | :--- |
| $7: 55$ | Weather report |
| $8: 00$ | News |
| $8: 15$ | Travel news |
| $8: 25$ | Sport |
| $8: 45$ | Holiday programme |

Josh turns the radio on at 7:25 am.
How many minutes does he have to wait for the Weather report?


1 mark
The Holiday programme lasts for 40 minutes.
At what time does the Holiday programme finish?


1 mark
28. A shop sells candles.

plain candles
35p each

star candles
60p each

stripe candles
85p each

Sapna buys 4 star candles and $\mathbf{2}$ stripe candles.
How much does she pay altogether?


2 marks


Josh buys 10 plain candles in the special offer.
How much does he pay for the 10 candles?


1 mark
29. These are the prices of coconuts and bananas.

coconuts
78p each

bananas
£1.20 for 1 kg

Josh buys one coconut and half a kilogram of bananas.
How much does he spend altogether?


2 marks

Oranges cost 25p each.


How many oranges can Josh buy for $£ 1.50$ ?


1 mark
30. Josh thinks of a number.


He adds 4
He multiplies his result by 3
Then he takes away 9
His final answer is 90
What number did Josh start with?

1 mark
31.


Sapna and Robbie have some biscuits.
Altogether they have 14 biscuits.
Sapna has 2 more biscuits than Robbie.
How many biscuits do Sapna and Robbie each have?

32.
7.4
8.1
9.4

10
Which two of these numbers, when multiplied together, have the answer closest to 70 ?


1 mark
33.


A box contains 220 matches and weighs 45 grams.
The empty box weighs 12 grams.
Calculate the weight of one match.


2 marks
34.


Alan has 45 beans.
He plants $\mathbf{3}$ beans in each of his pots.
How many pots does he need?


Leila puts $\mathbf{4}$ seeds in each of her pots.
She uses 6 pots and has 1 seed left over.
How many seeds did she start with?


1 mark
35. A shop sells three types of sunglasses.


What is the difference in price between the most expensive and least expensive sunglasses?


1 mark

The shop also sells sun hats.


Ryan buys the $£ 4.69$ sunglasses and a sun hat.
How much change does he get from $£ 10$ ?


2 marks
36. Liam thinks of a number.


He multiplies the number by 5 and then subtracts $\mathbf{6 0}$ from the result.
His answer equals the number he started with.
What was the number Liam started with?


[^0]37.


Here is part of a train timetable.

| Edinburgh | - | $09: 35$ | - | - | $13: 35$ | - | - |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Glasgow | $09: 15$ | - | $11: 15$ | $13: 15$ | - | $13: 45$ | $15: 15$ |
| Stirling | $09: 57$ | - | $11: 57$ | $13: 57$ | - | $14: 29$ | $15: 57$ |
| Perth | $10: 34$ | $10: 51$ | $12: 34$ | $14: 34$ | $14: 50$ | $15: 15$ | $16: 35$ |
| Inverness | - | $13: 10$ | - | - | $17: 05$ | - | - |

How long does the first train from Edinburgh take to travel to Inverness?


1 mark

Ellen is at Glasgow station at 1.30pm.
She wants to travel to Perth.
She catches the next train.
At what time will she arrive in Perth?


1 mark
38. Here is an equilateral triangle inside a square.


## Not actual size

The perimeter of the triangle is 48 centimetres.
What is the perimeter of the square?


2 marks
39. Cinema tickets cost $£ 3.65$ each. Hannah buys 4 tickets.


How much does Hannah pay?


1 mark

popcorn
£1.95

milkshake
£1.25

Nico buys a box of popcorn and two milkshakes.
How much does Nico spend altogether?


2 marks
40.


In a supermarket storeroom there are
7 boxes of tomato soup
5 boxes of pea soup
4 boxes of chicken soup
There are $\mathbf{2 4}$ tins in every box.
How many tins of soup are there altogether?


2 marks
41. Here are three supermarket bills.


Tom rounds each bill to the nearest $£ 10$ and then adds them up.
What is the total amount that Tom gets?


Mary adds up the three bills exactly.
What is the total difference between her total and Tom's total?


[^1]42.


Every $\mathbf{1 0 0} \mathbf{g}$ of brown bread contains $\mathbf{6 g}$ of fibre.
A loaf of bread weighs 800 g and has 20 equal slices.
How much fibre is there in one slice?


2 marks
43. Each of these bags contains $£ 1.60$

Each bag contains only one type of coin.


Complete this table to show how many coins are in each bag.
One has been done for you.

| Type of coin | Number of coins |
| :---: | :---: |
| $1 p$ | 160 |
| $10 p$ |  |
| $20 p$ |  |

44. 



Tom and Nadia have 16 cards each.
Tom gives Nadia 12 of his cards.

How many cards do Tom and Nadia each have now?


1 mark

Lucy also has 16 cards.
She gives a quarter of her cards to Kiran.
How many cards does Lucy give to Kiran?

1 mark
45. Martin has some bricks.

They are 12 cm long, 6 cm high and 6 cm deep.


He builds this tower with five bricks.


How tall is the tower?


1 mark

Each brick is 12 cm long.
Martin makes a line of bricks 132 cm long.


How many bricks does he use?


1 mark
46.


A bottle holds 1 litre of lemonade.
Rachel fills 5 glasses with lemonade.
She puts $\mathbf{1 5 0}$ millilitres in each glass.

How much lemonade is left in the bottle?

47. A packet contains $\mathbf{1 . 5}$ kilograms of guinea pig food.

Remi feeds her guinea pig $\mathbf{3 0}$ grams of food each day.


How many days does the packet of food last?


2 marks
48.


30 children are going on a trip.
It costs $£ 5$ including lunch.
Some children take their own packed lunch.
They pay only £3
The 30 children pay a total of $£ 110$

How many children are taking their own packed lunch?


2 marks
49. Here are five digit cards.


Use all five digit cards once to make this sum correct.

50. There are 5 balloons in a packet.

There are 18 packets in a box.


How many balloons are there altogether in a box?


There are 5 balloons in a packet.


Kofi needs 65 balloons
How many packets does he need?


1 mark
51. These are the prices in a fish and chip shop.


## Luke has £3

He wants to buy one fish, peas and two large bags of chips.
How much more money does he need?


2 marks
52.


The temperature inside an aeroplane is $20^{\circ} \mathrm{C}$.
The temperature outside the aeroplane is $-30^{\circ} \mathbf{C}$.
What is the difference between these temperatures?


1 mark
53.


Here are the start and finish times of some children doing a sponsored walk.

|  | Start time | Finish time |
| :--- | :---: | :---: |
| Claire | $9: 30$ | $10: 55$ |
| Ruth | $9: 35$ | $11: 05$ |
| Dan | $9: 40$ | $11: 08$ |
| Tim | $9: 45$ | $11: 05$ |

How much longer did Claire take than Tim?


1 mark
54. This fence has three posts, equally spaced.


Each post is $\mathbf{1 5}$ centimetres wide.
The length of the fence is $\mathbf{1 5 3}$ centimetres.

Calculate the length of one gap between two posts.

55.


Cheddar cheese costs $£ 7.50$ for 1 kg .
Marie buys 200 grams of cheddar cheese.
How much does she pay?


1 mark

Cream cheese costs $£ 3.60$ for 1 kg .
Robbie buys a pot of cream cheese for 90p.


How many grams of cream cheese does he buy?

56.

$\mathbf{2 5 0} 000$ people visited a theme park in one year.
15\% of the people visited in April and
40\% of the people visited in August.
How many people visited the park in the rest of the year?


2 marks
57. Asif, Vicky and Nita go to town by bus.

This is what they pay.


How much more does Nita pay than Asif?


1 mark
Vicky then takes another bus from town to visit her auntie.
She pays 90p on this bus.
How much has Vicky paid altogether for her two bus tickets?


1 mark
58. A shop sells greetings cards.

Each card has a price code on it.
These are the codes.

| code | price |
| :---: | :---: |
| AA | $75 p$ |
| BB | $£ 1.15$ |
| CC | $£ 1.55$ |
| DD | $£ 1.70$ |
| EE | $£ 1.99$ |



Tina buys two cards.
One card has code AA on it.
The other card has code DD on it.
How much does Tina pay?


1 mark

Omar buys a card. He pays with a $£ 2$ coin.
He gets 45p change.
What is the code on his card?
$\qquad$
1 mark
59. Mr Singh buys paving slabs to go around his pond.


He buys 4 rectangular slabs and 4 square slabs.
What is the total cost of the slabs he buys?


Mr Singh says,

## 'It would cost more to use square slabs all the way round.'

Explain why he is correct.
$\qquad$
$\qquad$
$\qquad$
60.


6 green apples for 75 p


10 red apples for 90 p

Jason bought some bags of green apples and some bags of red apples.
He spent $£ 4.20$

How many bags of each type of apples did he buy?


Nika and Hassan bought some bags of apples.
Nika says,

## 'I bought more apples than Hassan, but I spent less money.'

Explain how this is possible.
$\qquad$
$\qquad$
$\qquad$
61. Draw a line from each card to the correct part of the number line.

One has been done for you.
You may use a calculator.


3 marks
62.


A box of four balls costs $£ 2.96$
How much does each ball cost?


1 mark

Dean and Alex buy 3 boxes of balls between them.

## Dean pays $£ 4.50$

How much must Alex pay?


2 marks
63.


185 people go to the school concert.
They pay £l. 35 each.
How much ticket money is collected?


1 mark

Programmes cost 15p each.
Selling programmes raises $£ 12.30$
How many programmes are sold?

64. There are 24 coloured cubes in a box.

Three-quarters of the cubes are red,
four of the cubes are blue
and the rest are green.


How many green cubes are in the box?


One more blue cube is put into the box.
What fraction of the cubes in the box are blue now?


1 mark
65.


The table shows the cost of coach tickets to different cities.

|  |  | Hull | York | Leeds |
| :--- | :--- | :---: | :---: | :---: |
| Adult | single | $£ 12.50$ | $£ 15.60$ | $£ 10.25$ |
|  | return | $£ 23.75$ | $£ 28.50$ | $£ 19.30$ |
|  | single | $£ 8.50$ | $£ 10.80$ | $£ 8.25$ |
|  | return | $£ 14.90$ | $£ 17.90$ | $£ 14.75$ |

What is the total cost for a return journey to York for one adult and two children?


How much more does it cost for two adults to make a single journey to Hull than to Leeds?


1 mark
66. What is the area of this shape?

67. This table shows the increase in bus fares.

| Bus Fares |  |
| :---: | :---: |
| old fare | new fare |
| $42 p$ | $48 p$ |
| $52 p$ | $57 p$ |
| $60 p$ | $72 p$ |
| $75 p$ | $85 p$ |
| $90 p$ | $£ 1.05$ |
| $£ 1.20$ | $£ 1.28$ |
|  |  |
|  |  |



Sohan's new bus fare is 72p.
How much has his bus fare gone up?


1 mark

Millie says,
'My bus fare has gone up by 10p'.
How much is Millie's new bus fare?


1 mark
68. Lewis makes a call from a telephone box.


He has $£ 2$ in coins.

He uses these five coins to make the call.


How much money has he got left from the £2?


1 mark
69. Write in the missing digits to make this correct.

70.

## Book Sale

Any 3 books for £14.50


Lee bought these three books in the sale for $£ 14.50$

How much money did he save altogether compared to the full price of the books?

71. Plants are sold in trays of $\mathbf{2 0}$


Ivana buys 7 trays of plants.

How many plants is this?


1 mark
David wants 240 plants.
How many trays does he need to buy?


1 mark
72. Here are some number cards.


Use five of the number cards to make this correct.

73. Write in what the missing numbers could be.


1 mark
74.


| Boat Hire |  |
| :---: | :---: |
| Motor boats | Rowing boats |
| $£ 1.50$ for 15 minutes | $£ 2.50$ for 1 hour |

How much does it cost to hire a rowing boat for three hours?


1 mark

Sasha pays $£ 3.00$ to hire a motor boat.
She goes out at 3:20 pm.
By what time must she return?


1 mark
75.


This is the cost to visit the waxworks.


On Friday morning $\mathbf{1 2}$ adults and $\mathbf{2 0}$ children visit the waxworks.
How much do they pay altogether?


Guide books cost £1.50 each.
The waxworks sells $£ 24$ worth of guide books.
How many guide books is this?


1 mark
76. Circle two numbers which have a difference of $\mathbf{2}$
\$
$\begin{array}{llllll}-1 & -0.5 & 0 & 0.5 & 1 & 1.5\end{array}$
1 mark
77. Here is a recipe for raspberry ice cream.


This recipe is for 8 people.

Josie makes enough raspberry ice cream for 12 people.
How much cream does she use?


1 mark

Fred makes raspberry ice cream in the same way.
He uses $\mathbf{2} 1 / 2 \mathbf{k g}$ of raspberries.
How much sugar does he use?


2 marks
78. Lauren has three small equilateral triangles and one large equilateral triangle.

The small triangles have sides of 7 centimetres.
Lauren makes this shape.


Calculate the perimeter of the shape.
Do not use a ruler.


1 mark
79. Write the three prime numbers which multiply to make 231
$\$$

$\times \square$
$=231$

1 mark
80. p and $\mathbf{q}$ each stand for whole numbers.

$$
p+q=1000
$$

$\mathbf{p}$ is 150 greater than $\mathbf{q}$.

Calculate the numbers $\mathbf{p}$ and $\mathbf{q}$.

81. A shop sells batteries in packs of four and packs of two.


Simon and Nick want two batteries each.
They buy a pack of four and share the cost equally.
How much does each pay?


Mary buys 2 packs of two batteries.
Hamid buys 1 pack of four.
How much more does Mary pay than Hamid?

82. Leon and Sara each started with different numbers.


Leon and Sara both get the same answer.
What numbers could they have started with?


1 mark
83. Kim has some rectangular tiles.

Each one is $\mathbf{4}$ centimetres by 9 centimetres.


She makes a design with them.


Calculate the width and height of her design.

84.


Chris saves 50p coins.
He has saved 45 of them.
How much money has Chris saved?


Michelle has saved $£ 8.40$ in $\mathbf{2 0 p}$ coins.
How many 20p coins does Michelle have?

85. Nadia is working with whole numbers.

She says,
'If you add a two-digit number to a two-digit number you cannot get a four-digit number'.

Is she correct? Circle Yes or No. Yes / No

Explain why.
$\qquad$
$\qquad$
$\qquad$
86. Here is a map of part of France.


The map shows that the distance from Calais to Paris is $\mathbf{3 2 0}$ kilometres.
5 miles is approximately $\mathbf{8}$ kilometres.
Use these facts to calculate the approximate distance in miles from Calais to Paris.


Samira bought this present in France.


She paid 44.85 French Francs for it.

### 9.75 French Francs equal $£ 1$

What was the cost of the present in pounds and pence?

87. Rob has some number cards.


He holds up a card.
He says,
'If I multiply the number on this card by 5 , the answer is 35 '.
What is the number on the card?


1 mark

He holds up a different card.
He says,
'If I divide the number on this card by 6, the answer is 4'.
What is the number on the card?

88. A shop sells flowers.


## Daffodils

99p for a bunch


Roses
40p each

John buys 3 bunches of daffodils.
How much does he pay altogether?


1 mark

Karpal has $£ 4.00$ to spend on roses.
How many roses can she buy for $£ 4.00$ ?


1 mark
89. A shop sells sheets of sticky labels.

On each sheet there are $\mathbf{3 6}$ rows and 18 columns of labels.


How many labels are there altogether on 45 sheets?

90. One length of a swimming pool is $\mathbf{2 5}$ metres.


How many lengths are there in a 150 metre race?


Six children swim a 50 metre race.

| Lane | Name | Time in Seconds |
| :---: | :---: | :---: |
| 1 | Bryn | 92.4 |
| 2 | Craig | 86.3 |
| 3 | Fiona | 90.4 |
| 4 | Harun | 85.1 |
| 5 | Jody | 84.7 |
| 6 | Dean | 89.2 |

Who finished first?
$\qquad$

How many seconds faster was Dean than Fiona?


1 mark
91. Here is a picture of three people.


Lisa's height is half-way between Julie's height and Tom's height.

## Calculate Lisa's height.



2 marks
92.


2753 people go to a sports event.
Each person pays $£ 2.30$ for a ticket.
What is the total amount of ticket money collected?


1 mark

Programmes cost 65p each.
The total money from programme sales is $£ 612.95$
How many programmes are sold?

93. There are $\mathbf{1 2}$ pencils in a box.


## A school buys 24 boxes.



How many pencils does the school buy?

94. A school collects money for charity.

This chart shows how much has been collected.


The target is $£ 3000$.
Estimate how much more money the school needs to reach the target.


1 mark

Anil says,
The chart shows that we will reach the target in two months.
Use the chart to explain why Anil may be wrong.
$\qquad$
$\qquad$
$\qquad$
95. Strips of paper are each $\mathbf{3 0}$ centimetres long.


Steve joins strips of paper together to make a streamer.

The strips overlap each other by 5 cm .


How long is a streamer made from only 2 strips?


1 mark

Sunita makes a streamer that is $\mathbf{2 8 0} \mathbf{c m}$ long.
How many strips does she use?

96. Some children do a sponsored walk.


Jason is sponsored for $£ 3.45$ for each lap.
He does 23 laps.
How much money does he raise?


1 mark

Lynne wants to raise $£ 100$.
She is sponsored for $£ 6.50$ for each lap.
What is the least number of whole laps she must do?
97. Write the three missing digits.


1 mark


[^0]:    2 marks

[^1]:    2 marks

