

Paper two

Name: _____

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO.

You will have a total of **47 minutes** to complete the test. The time allowed for each section is given at the start of that section. At the end of each section, you must wait to be told to continue on to the next section. Answer as many questions as you can.

There are four sections in this paper:

Section One (Short Maths): 20 questions in 12 minutes

Section Two (Long Maths): 12 questions in 20 minutes

Section Three (Non-verbal Reasoning): 30 questions in 15 minutes

Total Number of Questions: 62

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Section 1: Short Maths

YOU HAVE 12 MINUTES TO COMPLETE THIS SECTION.

THERE ARE 20 QUESTIONS IN THIS SECTION.

There are two types of answers you may be asked to give:

EXAMPLE A

A) Which of the following fractions is equivalent to $\frac{6}{9}$?

$\frac{1}{2}$	[]
$\frac{2}{3}$	<input checked="" type="checkbox"/>
$\frac{4}{7}$	[]
$\frac{4}{9}$	[]
$\frac{2}{13}$	[]

EXAMPLE B

B) Joe bought an apple that cost 58p and some orange juice that cost £1.78. How much did he spend in total?

£	2	.	3	6
	[0]		[0]	[0]
	[1]		[1]	[1]
	<input checked="" type="checkbox"/>		[2]	[2]
	[3]		<input checked="" type="checkbox"/>	[3]
	[4]		[4]	[4]
	[5]		[5]	[5]
	[6]		[6]	<input checked="" type="checkbox"/>
	[7]		[7]	[7]
	[8]		[8]	[8]
	[9]		[9]	[9]

Fill in the missing numbers so that the following calculations are correct. Mark your answers on the answer grid.

1. There are 36 chocolates in a box. Two thirds have soft centres. The rest have hard centres.

How many chocolates have hard centres?

2. A film showing starts at 2.45pm. The film lasts for two hours and fifteen minutes. What time does the film end?

3.

?	?	+	123	=	201
---	---	---	-----	---	-----

4.

?	x	60	=	1800
---	---	----	---	------

5. There are 344 children in the Trafford Centre. $\frac{5}{8}$ are boys.

How many are girls?

6. It takes Shelby 14 minutes to run 3 kilometres.

Running at the same rate, how long does it take her to run 1500 metres?

7.

643	-	?	=	416
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8.

-9	x	?	=	-270
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9.

7^2	-	3^3	=	?
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10.

$\frac{4}{5}$	+	?	=	2
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11.

-7	-	-10	=	?
----	---	-----	---	---

12.

?	x	1000	=	206
---	---	------	---	-----

13.

0.402	x	?	=	402
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14.

0.7	x	6	=	
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15. Which of the following decimals is largest?

0.316	0.3	0.324	0.35	0.305
A	B	C	D	E

16. Which of the following decimals is smallest?

0.34	0.032	0.024	0.198	0.028
A	B	C	D	E

17. Which of the following fractions is largest?

$\frac{4}{11}$	$\frac{5}{8}$	$\frac{3}{7}$	$\frac{11}{17}$	$\frac{25}{32}$
A	B	C	D	E

18. I bought four tangerines costing 27p each and a pineapple that cost £1.80.

How much did I spend in total?

19. To make pancakes for 4 people you need 6 eggs.

How many eggs do you need to make pancakes for 2 people?

20.

$6x$	+	2	=	44
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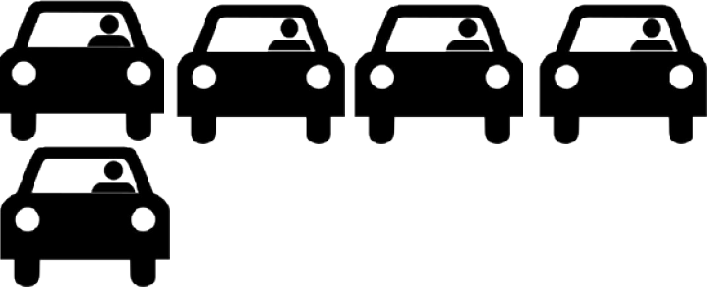


x	=	?
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STOP. YOU MAY CHECK YOUR ANSWERS IN THIS SECTION ONLY.

Section 2 - Long Maths

12 QUESTIONS: 20 MINUTES

1. Class 5 counted the cars going past school between 10 am and 11.30 am on Monday morning. Then they filled in a pictogram to show how many cars of each type were counted. The pictogram is not complete. The children have not filled in how many Ford Kas went past.

Type of Car	Amount Passing between 10 am and 11.30 am
Mini	
Peugeot 208	
VW Golf	
Smart Car	
Ford Ka	
	 KEY = 4 CARS

- a) If 50 cars in total went past, how many were Ford Kas?
 b) What fraction of the 50 cars were Smart Cars?
 c) What is the probability that the next car passing will be a Mini? Give your answer as a decimal.

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2. There are 13 biscuits in a packet. Twelve packets will fill a box. How many biscuits are in each box?
3. A car journey of 200 miles takes five hours, including a one hour stop for lunch. What is the mean speed of the car during the journey?
4. Annika takes a train to Berlin for a holiday. Her train leaves Manchester at 0615 and takes twenty seven hours and 45 minutes to arrive in Berlin. The time in Berlin is one hour ahead of the time in Manchester. What time is it in Berlin when Annika's flight arrives? Give your answer in 24 hour clock format.
5. Hiring a bike costs £3.50 per hour. How much does it cost to hire a bike for five hours?
6. Dolly has a bag of ten sweets. Four are blue and six are green. She eats one green sweet. What is the probability that the next sweet she takes from the bag will be blue?
7. Daisy is making cupcakes. According to her recipe, she needs 450g of flour. Unfortunately, Daisy has only 300g of flour. The recipe is for 12 cakes. How many cakes can Daisy make with the flour she has?

USE THIS SPACE FOR WORKING OUT:

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8. Milkshakes in Darby's cafe are discounted by 20%. Before the discount, a strawberry milkshake cost £3.00, a banana milkshake cost £2.50 and a chocolate milkshake cost £3.50. How much will I pay in total for one of each type of milkshake after the discount?

9. A tennis court measures 23 metres by 8 metres. How many metres is the perimeter of the court?

10. Armin takes a 12 minute bus journey to school each morning. It takes him three minutes to walk to the bus stop. He has to wait five minutes for the bus to arrive. Armin arrives at school at 0900. At what time does Armin leave the house?

USE THIS SPACE FOR WORKING OUT:

STOP: WAIT UNTIL YOU ARE TOLD TO GO ON: YOU MAY CHECK YOUR ANSWERS IN THIS SECTION ONLY.