

Surname ..... Candidate number .....

First name .....

Current school .....



# Entrance Examination 2020

## Arithmetic Section A

**30 minutes**

**Do not open this booklet until told to do so**

**Calculators may not be used**

**Write your names, school and candidate number in the spaces provided at the top of this page.**

You have 30 minutes for this paper which is worth 20 marks.  
Each question is worth 1 mark.

Answer all the questions, attempting them in order and writing your answers clearly. If you find that you cannot answer a question straight away leave it blank and return to it later if you have time. Try not to leave blank answer spaces at the end, instead make the best attempt at an answer that you can.

**If you need to change an answer cross it out neatly and write the new answer alongside the box. You may use rough paper for working out, this will not be marked.**

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Marker 1	Methods Q1-10	Problems Q11-20	Marker 1 TOTAL	Marker 2 CHECK	AGREED MARK
Number Correct	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number Wrong	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

1. Work out  $627 - 435$

1	
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2. Work out  $9.6 \div 0.08$

2	
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3. Add the following two fractions  $2\frac{3}{4} + 1\frac{5}{8}$

3	
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4. Work out  $6.25 \times 4000$

4	
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5. Express 0.44 as a fraction in its simplest form

5	
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6. What is 40% of 650ml?

6		ml
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7. Niall cuts two pieces from a rope of length 10m and gives them to Jack. The pieces are 3.8m and 4m 45cm in length. How much rope does Niall have left? Give your answer in cms.

7		cm
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8. How many minutes are there between quarter to ten in the morning and 11.25am?

8		mins
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9. Work out the sum of all the factors of 24, including 1 and 24 itself.

9	
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10. If  $\frac{2}{3}$  of a number is 32, what is  $\frac{3}{4}$  of the same number?

10	
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**FOR  
MARKER  
USE ONLY**

	<b>Q1 - 10</b>
<b>Number Correct</b>	

	<b>Q1 - 10</b>
<b>Number Wrong</b>	

11. A number is squished when you subtract it from the answer you get when you multiply the number by itself. So, when 7 is squished your answer is 42, because  $7 \times 7 - 7 = 42$ . What number gives an answer of 132 when it is squished?

11	
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12. In a chess competition, players score one point for winning a game,  $\frac{1}{2}$  point if the game is drawn and zero points when they lose a game. If Asif played eight games in the competition and only lost one game and his score was  $5\frac{1}{2}$  points, how many games did he win?

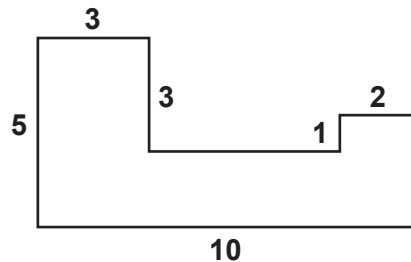
12	
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13. If the instructions for my calculation are to 'multiply my number by 8 and then subtract 3' what number am I thinking of originally if my answer is 53?

13	
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14. What is the **area** of the shape below if all the measurements of the sides are in cms?

14	cm <sup>2</sup>
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15. A full jar of marmalade weighs 750g. When half of the marmalade has been eaten the weight is now 465g. How much does the **empty** jar weigh?

15	g
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16. In a class at MGS, 16 boys said they liked to play football and 10 boys said they liked to play hockey. If four of those boys said they liked to play both sports and three others in the class said that they didn't like playing either sport, how many boys were in the class altogether?

16	
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17. John keeps frogs which have four legs each, beetles which have six legs each and spiders which have eight legs each in his bedroom at home. He has three times as many spiders as frogs and two times as many beetles as frogs. One day he counts all the legs on his creatures and the total is 120 legs. How many frogs does he have?

17	
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18. If two jumpers and five shirts cost £64 and four jumpers and nine shirts cost £120, what is the cost of one jumper?

18	£	
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19. A supermarket carpark has 300 spaces. One Saturday, shoppers start arriving at 7.30am at a rate of 120 cars per hour. From 8.30am cars start leaving at a rate of 60 cars per hour. At what time will the carpark first be full?

19	
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20. How many **three** digit numbers contain **at least** one seven amongst their digits?

20	
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## This is the end of the Examination

Use any remaining time to check your work  
or try any questions you have not answered.

FOR  
MARKER  
USE ONLY

	Q11 - 20
Number Correct	

	Q11 - 20
Number Wrong	