Name Class



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Factors and multiples

(9-1) Topic booklet

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

Instructions

- •Use black ink or ball-point pen.
- •Fill in the boxes at the top of this page with your name, centre number and candidate number.
- •Answer all questions.
- Answer the questions in the spaces provided
- there may be more space than you need.
- •Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must show all your working out.
- •If the question is a **1F** question you are not allowed to use a calculator.
- •If the question is a **2F** or a **3F** question, you may use a calculator to help you answer.

Information

- •The marks for **each** question are shown in brackets
- use this as a guide as to how much time to spend on each question.

Advice

- •Read each question carefully before you start to answer it.
- •Keep an eye on the time.
- •Try to answer every question.
- •Check your answers if you have time at the end.

Answer ALL questions Write your answers in the space provided. You must write down all the stages in your working.

1	Write down two factors of 12			
N	ovember 2019 – Paper 3F	(To	tal for Que	estion 1 is 1 mark)
2	Write down two factors of 35			
No	ovember 2021 – Paper 3F	(Tot	al for Ques	stion 2 is 1 mark)
2	Here is a list of numbers.	(100	ar for Ques	Shou 2 is I marky
	5 11 18 From the list, write down a multiple of 3	22	29	
M	ay 2020 – Paper 1F	(Tot	tal for Que	stion 2 is 1 mark)
2	Write down a multiple of 8 that is between 41 and 60)		
<u>Ju</u>	ne 2019 – Paper 3F	(To	tal for Que	estion 2 is 1 mark)

2	Write down a multiple of 6 that is between 40 and 50	
No	ovember 2017 – Paper 2F	(Total for Question 2 is 1 mark)
2	Here is a list of six numbers.	
	1 3 6 9	12 24
	Which number in the list is not a factor of 24?	
Sp	pecimen 1 – Paper 2F	(Total for Question 2 is 1 mark)
3	Write down two factors of 12	
Ţ		
Ju	ne 2022 – Paper 3F	(Total for Question 3 is 1 mark)
3	Write down two factors of 15	
Jur	ne 2019 – Paper 2F	(Total for Question 3 is 1 mark)

3	Here is a list of n	umbers.							
		3	5	7	12	15	18	20	
	From the list, wri	te down	a factor of	of 10					
No	vember 2018 – Pap	er 1F				(To	tal for Q	uestion 3 is 1 m	ark)
3	Write down all th	ne factors	s of 18						
N	ovember 2017 – Pa	per 3F				(Tota	al for Qu	estion 3 is 2 ma	rks)
3	Write down an ev	en numb	er that is	a multi	ple of 7				
Spe	ecimen 2 – Paper 3I	<u> </u>				(To	tal for Q	uestion 3 is 1 m	ark)
4	Write down a fac	tor of 60	that is b	etween	8 and 14				
N	ovember 2022 – 1F					(To	tal for O	uestion 4 is 1 m	ark)
	2022					(10	101 Q	THE THE	

Here is a list of numbers. 7 8 15 16 18 22 Write down the number from the list that is a multiple of 6								
Write down the number from the list that is a multiple of 6 Total for Question 4 is 1 man There is a list of numbers. 1 2 5 6 12 From the list, write down (i) a multiple of 4	ne 2022 – Paper 2F					(Total	for Questic	on 4 is 1 mark)
Write down the number from the list that is a multiple of 6	Here is a list of numbers	S.						
Here is a list of numbers. 1 2 5 6 12 From the list, write down (i) a multiple of 4		7	8	15	16	18	22	
Here is a list of numbers. 1 2 5 6 12 From the list, write down (i) a multiple of 4	Write down the number	from tl	ne list th	at is a m	ultiple o	f 6		
Here is a list of numbers. 1 2 5 6 12 From the list, write down (i) a multiple of 4								
1 2 5 6 12 From the list, write down (i) a multiple of 4	ovember 2019 – Paper 3F					(Total	for Questic	on 4 is 1 mark)
1 2 5 6 12 From the list, write down (i) a multiple of 4								
From the list, write down (i) a multiple of 4	Here is a list of number	s.						
(i) a multiple of 4		1	2	5	6	12		
	From the list, write dow	'n						
(ii) a prime number	(i) a multiple of 4							
	(ii) a prime number							
pecimen 1 – Paper 3F (Total for Question 4 is 2 mar)	pecimen 1 – Paper 3F					(Total f	for Questio	n 4 is 2 marks)
						an		
	mple 1 – Paper 1F					(Total f	or Question	n 4 is 2 marks)

5	Here is a list of numbers.					
		5	11	18	22	29
	From the list, write down	a multipl	e of 3			
N	ovember 2022 – 3F				(Tota	l for Question 5 is 1 mark)
5	Write down the first even r	multiple o	of 7			
M	ay 2018 – Paper 1F				(Total	for Question 5 is 1 mark)

6	Here is a list of	of whole	numbers	from 21	to 30						
	21	22	23	24	25	26	27	28	29	30	
	(a) From the	list, write	down a	square n	umber.						
										(4)	
	(b) From the	list, write	e down a	multiple	of 8					(1)	
										(1)	
No	vember 2021 –	Paper 1F					(Total f	or Quest	tion 6 is 2	2 marks)	
6	Margaret is the She says,			er.	It is a fac	etor of 36	o and a m	ultiple of	f 3"		
	There are two	possible	numbers	s Margare	et can be	thinking	of.				
	Write down th	nese two	numbers								
Ma	ay 2018 – Paper	2F					(Total fo	or Questi	ion 6 is 3	marks)	

Write down all the factors of 30	
Лау 2018 – Paper 3F	(Total for Question 6 is 2 marks)
Jan writes down	
one multiple of 9 and two different factors of 40	
Jan adds together her three numbers. Her answer is greater than 20 but less than 30	
Find three numbers that Jan could have written down	
Sample 1 – Paper 2F	(Total for Question 6 is 3 marks)
7 Write down three different factors of 18 that add tog	ether to give a prime number.
Specimen 2 – Paper 3F	(Total for Question 7 is 2 marks)

	Here is a										
		21	22	23	24	25	26	27	28	29	
	(a) From	the number	rs in the	list, writ	te down	a squar	e numbe	er.			
											(1)
	(b) From	the number	rs in the	list, writ	te down	a numb	er that is	s a multi	ple of h	oth 4 and	(1)
	(6) 116111			1104, 1111					pre or a		
											(1)
	(c) Write	down all th	ne prime	number	s in the	list.					
											(1)
uı	e 2017 – F	Paper 2F					Т)	otal for	Questio	n 8 is 3 m	
		Paper 2F	ferent m	ultiples	of 4 tha	t add ur		otal for	Questio	n 8 is 3 m	

	s have the same n			
Bert puts	s a star on every of a circle on every	eard that has a multiple card that has a multip	e of 3 on it. le of 5 on it.	
Work ou	t how many cards	s have both a star and	a circle on them.	
Navambar 2	019 Doman 2E		(Total for Question	15 is 2 moules)
November 2	018 – Paper 3F		(Total for Question	15 is 5 marks)

10

15 Bert has 100 cards.

There is a whole number from 1 to 100 on each card.