1. Write these in order, smallest first.

$$0.34 \quad \frac{1}{3} \quad 3.5\%$$

2. Insert one of < , > or = to make each statement true.

(i) -57	[1]
(ii) 0.09 0.8	[1]
(iii) 6 <sup>2</sup> 12	[1]

3. Write these fractions in order of size, smallest first.

37	19	9	3
40	20	10	4

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----- ----- -----

smallest

OCR GCSE Maths - Ordering Fractions, Decimals and Percentages (F)

[2]

4. Write these numbers in order of size, smallest first.

7.037	7.30	7.30	7.737	7.37	
small	est:				
					 [2]



Julie asked three of her friends to estimate how much of the time it rained during their holidays. Their holidays were all the same length of time.

Eliot

40% of the time

Harpreet

 $\frac{5}{12^{\text{of the time}}}$ 

Megan

 $\frac{3}{8}$  of the time

Put these estimates in order, starting with the smallest. You must show your method clearly.

smallest [4]

6. Arrange the following in order of size, smallest first.

smallest

110 m 1 mile 10000 cm 1 km -----Uest

OCR GCSE Maths - Ordering Fractions, Decimals and Percentages (F)

[2]

7.	Write the following temperatures, in °C, in order starting with the coldest.					
	6	-8	<sup>-</sup> 11	0	-2	
		coldest				
						[1]
8.	Mrs Adam goes with her	5 grandchildren to	have a photog	raph taken.		
	Here are the heights of	the grandchildren.				

Eve	Charlie	Ray	Sam	Lucie
1.63 m	1.06 m	2.02 m	1.6 m	1.98 m

The children are lined up in order of height, tallest first.

Write the order the grandchildren should stand in for the photograph.

tallest [2]

## 9(a). Lynne drove to work each morning for a week.

She recorded the temperatures, in degrees Celsius, inside her car in this table.

Monday	Tuesday	Wednesday	Thursday	Friday
-2	-5	3	4	-1

Which day was the coldest?

						[1]
(b). Write the ten	nperatures in order, sta	ting with the o	coldest.			
	cold	est				[1]
10. Write these i	numbers in order of size	e, smallest firs	t.			
	4.02	4.2	4.042	4.024	4.202	
	smallest <sup></sup>					[2
11.						
Use one of t	hese symbols <, > or =	to make each	statement tru	Ie.		
(i) 17.6	1	7.06				[1]
						[']

(ii) 0.9\_\_\_\_\_ <u>45</u> 50

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[1]



Use one of these symbols <, > or = to make each statement true.

- - (iii) 6 ..... 2<sup>3</sup>

13. Write the following in order of size, smallest first.

 $28\% \frac{7}{26}$ 

[1]

smallest

2.7

## END OF QUESTION PAPER



Q	uestio	n	Answer/Indicative content	Marks	Part marks and guidance	
1			3.5%, <sup>1</sup> / <sub>3</sub> , 0.34	2	<b>B1</b> for $\frac{1}{3}$ = 0.33 or 33% or B1 for 0.34 = 34% or B1 for changing 3.5% to 0.035 or <b>SC1</b> for $\frac{1}{3}$ , 0.34, 3.5%	Accept correct order with equivalent values
			Total	2		
2		i	>	1		
		ii	<	1		
		iii	>	1		
			Total	3		

Question	Answer/Indicative content	Marks	Part marks and guidance		
3	$\frac{3}{4}  \frac{9}{10}  \frac{37}{40}  \frac{19}{20}$	2	<ul> <li>B1 for three of the given fractions in correct order (relative to one another) OR</li> <li>M1 for any correct conversion to get a common denominator for 2 fractions or 2 correctly converted decimals or percentages. OR</li> <li>SC1 for correct order reversed</li> </ul>	Cover up the 1 <sup>st</sup> error, the remaining 3 fractions must be in the correct order. Condone omission of % sign Examiner's Comments Most candidates gained one mark by placing 3 fractions in order. The fraction most misplaced being $\frac{37}{40}$ which appeared most often in the last or first position. Little supporting work was in evidence and just a few candidates compared values by converting to decimals or percentages. Candidates who successfully wrote the fractions to some common 'denominator' usually attained the full 2 marks.	
	Total	2		·	
4	7.037 7.30 7.307 7.37 7.737	2	B1 for 4 in correct order SC1 for correct but reversed	Examiner's Comments A high number scored full marks and successful students often compared the numbers by adding zeros where required. There were often issues with 7.37 placed earlier in the list and place values were easily confused especially with 7.037, 7.30 and 7.37. Many candidates however scored 1 mark for misplacing just one value.	
	Total	2			

5 $\begin{bmatrix} 3\\ \frac{3}{8}, 40\%, \frac{5}{12} \\ oe with correct method \end{bmatrix} \begin{bmatrix} 4\\ \frac{100}{2}, \frac{2}{5} & etc \\ 100, \frac{2}{5} & etc \\ 10$
$\frac{3}{8} = \frac{1}{2.6()},$ $40\% = \frac{1}{2.5}, \frac{5}{12} = \frac{1}{2.4}$ And And

Question	Answer/Indicative content	Marks	Part marks and guidance		
			A1 for second correct conversion to same form	Fourth mark dependent on M1A2	
			OR If 0 scored SC2 for reasonable attempt at drawing equivalent bars (or other diagrams) followed by correct answer Or SC1 for correct answer with no working Examiner's Comments		
			Examiner's Comments This question was common to Higher and Foundation Tiers, and many candidates scored 1 or 2 marks. This was often for giving the correct answer without working or for converting 40% to a fraction or decimal. However, conversion of all three fractions to a common form was beyond many candidates.		
			Candidates who attempted to convert fractions to decimals were rarely successful as their division skills were inadequate. Common errors were to write, for example, $\frac{5}{12}$ as 2.2 or 2.4 or 60.		
	Total	4			

Qı	uestio	n	Answer/Indicative content	Marks	Part marks a	nd guidance
6			10000 cm, 110m, 1 km, 1 mile	2	B1 for 3 correctly ordered Examiner's Comments This was well answered, with the common error being to confuse the order of 1 km and 1 mile. It was pleasing to see the strategy of attempting to convert the metric units to a common unit.	Accept equivalents, condone omission of units, transcription slips if order is clear
			Total	2		
7			–11, –8, –2, 0, 6	1	Examiner's Comments Extremely well attempted and the vast majority of candidates achieved full marks. Of those who did not achieve full marks there were issues with copying down the incorrect numbers, putting zero as the largest number and ignoring the negative signs.	Ignore units
			Total	1		
8			Ray, Lucie, Eve, Sam, Charlie 2.02 1.98 1.63 1.6 1.06	2	M1 for 4 correctly ordered or B1 correct order reversed Examiner's Comments This was generally answered well. The most common error was to confuse 1.6 and 1.06.	ignoring 1 error the other 4 correctly ordered
			Total	2		

Question		n	Answer/Indicative content	Marks	Part marks a	nd guidance
9	а		Tue[sday]	1	Examiner's Comments Nearly all candidates were able to identify the coldest day.	Allow –5 with Tuesday on the answer line
	b		-5, -2, -1, 3, 4	1	Examiner's Comments Nearly all candidates were able to put the directed numbers in order of size.	
			Total	2		
10			4.02, 4.024, 4.042, 4.2, 4.202	2	B1 for 1 not in correct order SC1 order reversed Examiner's Comments Many candidates scored at least 1 mark. The errors were due to a lack of understanding of place value, e.g. 4.2 was often placed before 4.02. The most successful candidates were adding zeros to 4.2 and 4.02 to give all the values the same number of decimal places.	
			Total	2		

Question		n	Answer/Indicative content	Marks	Part marks and guidance
11		i	>	1	Examiner's Comments Part (a) was generally correct. In (b) many were correct although some simply wrote 300 or rounded to the nearest ten or nearest thousand. The conversion in (c) was also relatively successful; common errors were 5.8 and 0.58.
		ii	=	1	
			Total	2	
12		i	=	1	
		ii	<	1	
				1	Examiner's CommentsMost candidates $\frac{1}{4}$ Inrecognised thatthenext two parts, mostcandidates recognised theneed to use an inequalitysymbol, however someseemed to be under theimpressions that they woulduse one of each symbol, soused one '<' and one '=',
			Total	3	

Question	Answer/Indicative content	Marks	Part marks and guidance	
13	7/26     28     2.7       %     %	2	M1 for either 0.28 o $\frac{7}{25}$ from r 28% or 0.26[9] or 0.27Examiner's CommentsIn many cases it was the method of conversion that determined the level of success in this question. Some candidates understood that 2.7 was the largest value and looked to $\frac{7}{26}$ and compare 28%. The most successful method was to convert the fraction to a decimal (0.26, 0.269, 0.27 were all given credit). Many either considered 2.7 to be the smallest value or gave all three values in descending order.	
	Total	2		