Write your name, centre number and candidate number in the boxes below.

Surname	Other names

Centre number | | | | | |

Candidate number | | | | |

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Ordering and comparing numbers

Time allowed: 25 minutes

Subject code **0580**

Mathematics

Questions from Paper 1, Paper 2 and Paper 4

You must have: a ruler marked in centimetres and millimetres, a protractor, compasses, a pen, an HB pencil and an eraser.
You may use a calculator.

Total marks

/ 19

Instructions

- Answer every question in the space provided on this paper.
- Write in black or dark blue ink. Pencil may be used for diagrams and graphs.
- Fill in your name, centre number and candidate number above.
- Show your working: a correct method can earn marks even if the answer is wrong.
- Unless a question says otherwise, give answers that are not exact to 3 significant figures, and angles in degrees to 1 decimal place.

Information

- This paper has 10 questions worth 19 marks in total.
- The marks for each question or part are shown in brackets, for example [3].

Advice

- Read every question through once before you write anything.
- Use the marks in brackets to judge how long to spend on each part.
- If you finish early, go back and check your working.

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Print at 100% (Actual size) so diagrams keep their real measurements.

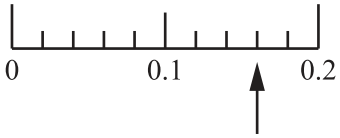
1 The temperature at 07 00 is −3 °C.
This temperature is 11 °C higher than the temperature at 01 00.

Find the temperature at 01 00.

..... °C [1]

Directed numbers Click for more variations

2 **(a)**



Write down the number the arrow is pointing to on this scale.

..... [1]

(b) Write these numbers in order of size, starting with the smallest.

0.42 0.06 0.5 0.078

..... < ..... < ..... < .....[1]
smallest

(a) Mathematical symbols (b) Ordering fractions, decimals and percentages Click for more variations

3 −7 12 −3 2 8 −6 15 −4 −8

From the list of numbers, find

(a) all the numbers which are less than −5

..... [1]

(b) the product of the largest number and the smallest number.

..... [1]

(a) Directed numbers (b) Directed numbers Click for more variations

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4 On a mountain, the temperature decreases by 6.5 °C for every 1000 metres increase in height.
At 2000 metres the temperature is 10 °C.

Find the temperature at 6000 metres.

Answer ..... °C [2]

Directed numbers Click for more variations

5 Write these numbers in order, starting with the smallest.

34% π $\frac{1}{3}$ 3 $\frac{3}{10}$

..... < ..... < ..... < ..... < ..... [2]

smallest

Ordering fractions, decimals and percentages Click for more variations

6 Paul and Sammy take part in a race.
The probability that Paul wins the race is $\frac{9}{35}$.
The probability that Sammy wins the race is 26%.

Who is more likely to win the race?
Give a reason for your answer.

Answer ..... because ..... [2]

Ordering fractions, decimals and percentages Click for more variations

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7 $\frac{3}{5} < p < \frac{2}{3}$

Which of the following could be a value of p?

$\frac{16}{27}$ 0.67 60% $(0.8)^2$ $\sqrt{\frac{4}{9}}$

Answer ..... [2]

Ordering fractions, decimals and percentages Click for more variations

8 -9 -7 -3 -1 0 2 5 6 8

From this list of numbers, find

(a) the highest number possible from the product of **two** of the numbers

..... [1]

(b) the lowest number possible from the product of **three** of the numbers.

..... [1]

(a) Directed numbers (b) Directed numbers Click for more variations

9 Write the following in order of size, **largest** first.

sin 158° cos 158° cos 38° sin 38°

Answer ..... > ..... > ..... > ..... [2]

Mathematical symbols Click for more variations

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10 m is a positive integer.

Write these values in order of size, starting with the smallest.

m 33% of m $\frac{1}{3}$ of m 320% of $\frac{m}{10}$

....., ..., ..., ... [2]

smallest

Ordering fractions, decimals and percentages Click for more variations

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