FIRM FOUNDATION COUNTRY SCHOOL

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CANDIDATE NAME

CANDIDATE CLASS

MATHEMATICS
Core

0580

HOLIDAY WORK
TERM 1 2026

FORM ONE

You must answer on the question paper.

INSTRUCTIONS

- Answer **all** questions.
- Write your answer in your exercise book.
- Do **not** use an erasable pen or correction fluid.
- You may use tracing paper.
- You must show all necessary working clearly.
- Give non-exact numerical answers correct to 3 significant figures, or 1 decimal place for angles in degrees, unless a different level of accuracy is specified in the question.
- For decimal answers, write down all figures on your calculator display before writing down the final answer to the specified degree of accuracy.
- Work to be submitted on the opening day

INFORMATION

- The total mark for this paper is 30
- The number of marks for each question or part question is shown in brackets [ ]

This question paper consists of 4 printed pages.

1. Write down the reciprocal of

   a) 0.4 [1]

   b) $\frac{12}{10}$ [1]

2. Calculate

   a) 4^5 [1]

   b) $3^3 + 4^4$ [1]

   c) $\sqrt[3]{6859}$ [1]

3. Write down the set that the number -7 belong to. [1]

4. Which of the following is irrational [1]

   0.25 7 $\frac{3}{4}$ $\sqrt{2}$

5. Write down a whole number that is greater than -1 and less than 2 [1]

6. 3 6 19 20 24 27 30 32 35 36 48 49 51

   a) From this list of numbers write down

      i. A factor of 15 [1]

      ii. A multiple of 18 [1]

      iii. An odd square number [1]

      iv. A cube number [1]

   b) Explain why $\sqrt{17}$ is irrational [1]

7. Simplify

   a) $\frac{7}{8} \div \frac{14}{3}$ [2]

   b) $2\frac{1}{2} \times \frac{3}{4}$ [3]

   c) A recipe needs $\frac{2}{3}$ of a cup of sugar. If you make half the recipe , how much sugar is needed? [2]

8. Find the lowest common multiple (LCM) of

   a) 7 and 11 [2]

   b) 15 and 20 [2]

9. Find the highest common (HCF) of

a) 12 and 18 [2]

b) 60 and 24 [2]

10. **Without using a calculator work**, work out

(a) $\frac{11}{12} + \frac{5}{48}$, you must show all working [2]

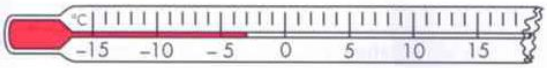
(b) $2\frac{1}{7} - 1\frac{3}{14}$, you must show all working and give your answer as a fraction in its simplest form. [2]

(c) $3\frac{2}{6} + 1\frac{9}{20}$ [3]

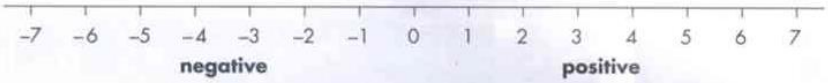
DIRECTED NUMBERS

Negative numbers are numbers *below* zero. You meet negative numbers when the temperature falls below freezing (0 °C).

The diagram below shows a thermometer with negative temperatures. The temperature is −3 °C. This means the temperature is three degrees below zero.



The number line below shows **positive** and negative numbers.



Positive and negative numbers together are called **directed numbers.**

Numbers to the left of any number on the number line are always smaller than that number.

So, for example, you can see from a number line that:

2 is *smaller* than 5 because 2 is to the left of 5.

You can write this as $2 < 5$.

−3 is *smaller* than 2 because −3 is to the *left* of 2.

You can write this as $-3 < 2$.

7 is *bigger* than 3 because 7 is to the *right* of 3.

You can write this as $7 > 3$.

−1 is *bigger* than −4 because −1 is to the *right* of −4.

You can write this as $-1 > -4$.

Reminder: The **inequality** signs:

< means 'is **less than**'

Notice that the **negative** numbers are to the left of 0 and the **positive** numbers are to the right of 0.

Numbers to the right of any number on the number line are always bigger than that number.