

# Sec 1 Math WA1 Mock Exam Paper 2025

Time Allowed: 1 hour

Total marks: 35

## Instructions:

- Answer all questions.
- Show your workings clearly.
- Marks are indicated for each question.
- Give your best shot!

## Additional materials:

- Calculator

- 
1. a) With the use of a calculator, evaluate  $\frac{(-3)^3 - \sqrt{0.5^2 + 4}}{3 \times (7 - 3.79)}$ , giving your answer correct to 3 decimal places.

S1/WA1/2024/NHHS/Q1

Answer: .....[1]

- b) Correct 0.045021 to

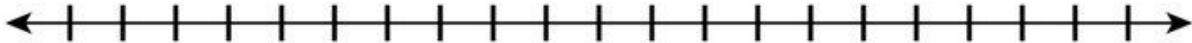
(i) 3 significant figures,

Answer: .....[1]

(ii) the nearest hundredth,

Answer: .....[1]

2. On the number given below, label all the prime numbers that are less than 13. [2]



3. By using prime factorisation, evaluate  $\sqrt{576}$  in its index notation.  
*S1/WA1/2024/Swiss Cottage/Q4*

Answer: .....[2]

4. Arrange the following numbers in ascending order:

$0.3, \frac{1}{3}, 33\%, -3$

*S1/WA1/2024/Fairfield/Q2*

Answer: .....[2]

5. The temperature at the bottom of a mountain is  $7^{\circ}\text{C}$  and the temperature at its top is  $-29^{\circ}\text{C}$ . *S1/WA1/2024/CTSS/Q4*

(a) Find the difference between the two temperatures.

Answer: .....[1]

(b) The lowest temperature recorded at the top of the mountain is  $15^{\circ}\text{C}$  lower than  $-29^{\circ}\text{C}$ . Find this temperature.

Answer: .....[1]

6. Without using a calculator, evaluate each of the following, showing all steps clearly.  
When necessary, give all your answers in their lowest terms.  
[Marks will not be awarded if essential steps are not shown]  
S1/WA1/2024/CCHMS/Q7

(a)  $[-7+(-2)] \times (-3)$

Answer: .....[2]

(b)  $1\frac{3}{4} \div 2 + 5\frac{1}{5}$

Answer: .....[3]

7. In a quiz with 12 questions, each correct answer is awarded 3 marks. For each wrong answer, 2 marks are deducted and for each unanswered question, 1 mark is deducted.

S1/WA1/2024/GESS/Q8

- (a) Find the maximum score for the quiz.

Answer: .....[1]

(b) Find the lowest possible score for the quiz.

Answer: .....[1]

(c) Isabel sat for the quiz. She had 7 correct answers, 3 wrong answers and 2 questions left blank. How many marks did she score?

Answer: .....[2]

8. Mr Phua visits a library every 8 days, Mr Subra visits the library every 20 days and Mr Quek visits the library every 14 days. If all of them visit the library on a particular day, after how many days will they visit the library on the same day again? [2]

*S1/WA1/2024/GESS/Q4*

Answer: .....[2]

9. Given,

$-13.9, -12, 0, 1, \frac{2}{5}, 8$

write down the number(s) that is/are

(a) natural number(s)

Answer: .....[1]

(b) even number(s)

Answer: .....[1]

(c) composite number(s)

*S1/WA1/2024/RVHS/Q3*

Answer: .....[1]

10. A two-digit number is equal to 4 times the sum of its digits. The number formed by reversing its digits is 36 more than the original number. Find the original number.

Answer: .....[4]

11. Written as a product of its prime factors,  $84 = 2^2 \times 3 \times 7$  and  $600 = 2^3 \times 3 \times 5^2$   
(a) Find the HCF and LCM of 84 and 600 respectively.

Answer: .....[2]

- (b) Find the smallest positive integer value of  $p$  such that  $600p$  is a perfect cube.

Answer: .....[1]

- (c) The highest common factor of 84, 600 and  $k$  is 6  
Find the smallest possible value of  $k$  that is divisible by 5.

Answer: .....[1]

(d) Is " $84 \times \frac{7}{3}$ " a perfect square? Use the given information to explain your answer.

S1/WA1/2024/FUHUA/Q8

Answer

.....

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.....[2]