

General Mathematics Term 1 Examination

Mathematics · Answer Key · 18 Questions

1. How is the regular hourly rate calculated for a worker with a 40-hour workweek and 52 weeks per year?

- A) Divide annual salary by 52, then by 40**
- B) Multiply annual salary by 52
- C) Add annual salary to weekly hours
- D) Divide weekly hours by 52

2. Which of the following is correct regarding Ana's commission in the payroll table?

- A) Ana earns commission**
- B) Ben earns overtime
- C) Cara earns piecework
- D) Cara earns commission

3. What is the correct sequence of operations for pricing a rice cooker with markup, discount, and VAT?

- A) Cost -> Discount -> VAT -> Markup
- B) Cost -> Markup -> Discount -> VAT**
- C) VAT -> Cost -> Markup -> Discount
- D) VAT -> Discount -> Markup -> Cost

4. Which item in the payroll form is unrelated to calculating the worker's net income?

- A) Allowance amount
- B) Deduction amounts
- C) Favorite color**
- D) Overtime hours

5. What is the next term in the Fibonacci sequence 1, 1, 2, 3, 5, 8, ...?

- A) 10
- B) 11
- C) 12
- D) 13**

6. What formula determines the number of seats in the 12th row of an auditorium starting at 18 with a common difference of 4?

- A) $a_n = a_1 + d/n$
- B) $a_n = a_1 + nd$
- C) $a_n = a_1 + (n-1)d$**
- D) $a_n = n(a_1 + d)$

7. Which expression represents a finite series in expanded form?

- A) $a_n = 4(2)^{n-1}$
- B) 2, 5, 8, 11, ...
- C) ? from $k=1$ to 4 of $(3k - 1)$

D) $2 + 5 + 8 + 11$

8. Which value of k produces the term 14 in the expression $3k + 2$?

- A) 2
- B) 3
- C) 4**
- D) 5

9. Which conversion correctly shows that 3 m^3 is equivalent to 3,000 L?

- A) $\text{m}^3 \rightarrow \text{cm}^3 \rightarrow \text{mL}$
- B) $\text{m}^3 \rightarrow \text{km}^3 \rightarrow \text{L}$
- C) $\text{m}^3 \rightarrow \text{dm}^3 \rightarrow \text{L}$**
- D) $\text{m}^3 \rightarrow \text{mm}^3 \rightarrow \text{L}$

10. What is the equivalent of 15 feet in inches?

- A) 15 in
- B) 27 in
- C) 150 in
- D) 180 in**

11. Which measurement is needed to calculate the lateral area of a cone-shaped roof?

- A) Cylinder height
- B) Paint cost
- C) Roof slant height**
- D) Roof vertical height

12. What is the total volume of a tank consisting of a cylinder ($r=2$, $h=6$) and a hemisphere ($r=2$)?

- A) 75.36 m^3
- B) 83.73 m^3**
- C) 88.00 m^3
- D) 92.11 m^3

13. Which source provides the most reliable distance information?

- A) Memory
- B) Official scaled map**
- C) Travel blog sketch
- D) Informal estimate

14. How much Philippine Pesos is 250 USD if 1 USD = 56.00 PHP?

- A) 13,500
- B) 14,000**
- C) 14,500
- D) 15,000

15. What Manila time corresponds to a meeting at 21:00 in Tokyo (UTC+9)?

- A) 18:00
- B) 19:00
- C) 20:00**
- D) 21:00

16. The medicine sensor reads 46.4°F. What is this in Celsius?

- A) 6°C**
- B) 8°C
- C) 10°C
- D) 14°C

17. How should the function $y = x^2 - 4$ be classified?

- A) Absolute-value function
- B) Linear function
- C) Quadratic function**
- D) Square-root function

18. Which statement best explains why the balance in an account with compound interest increases?

- A) The balance is rounded up
- B) The interest rate becomes zero
- C) Interest is earned on previous balance**
- D) The deposit is removed