

MATHEMATICS**CLASS 9****Chapter 3: The World of Numbers****WORKSHEET**

Name: _____

Class/Section: _____

Date: _____

Instructions: Choose the correct option (A, B, C or D) for each question.

Q1. Which of the following is the set of natural numbers?A. $\{0, 1, 2, 3, \dots\}$ B. $\{1, 2, 3, 4, \dots\}$ C. $\{\dots, -2, -1, 0, 1, 2, \dots\}$ D. $\{1/2, 1/3, 1/4, \dots\}$ **Q2. Which number was historically used to represent 'nothing' or an empty quantity?**

A. 1

B. -1

C. 0

D. 10

Q3. Which of the following is an integer but NOT a natural number?

A. 5

B. 8

C. 0

D. 12

Q4. The set of integers includes:

A. Only positive numbers

B. Only negative numbers

C. Positive numbers, negative numbers and zero

D. Only fractions

Q5. Which statement is true about natural numbers under subtraction?

A. They are always closed under subtraction

B. They are not closed under subtraction

C. Subtraction is impossible

D. The result is always zero

Q6. Which of the following is a rational number?A. $\sqrt{2}$ B. π C. $3/7$ D. $\sqrt{5}$ **Q7. A rational number can be expressed in the form:**A. $p + q$ B. p/q , where p and q are integers and $q \neq 0$

C. $p \times 0$

D. $\sqrt{p/q}$ only

Q8. Which of the following is irrational?

A. 0.25

B. $7/8$

C. $\sqrt{2}$

D. 0.333...

Q9. Which decimal is non-terminating but repeating?

A. 0.5

B. 0.125

C. 0.333...

D. 0.04

Q10. Which decimal represents an irrational number?

A. 0.121212...

B. 0.75

C. 0.101001000100001...

D. 0.666...

Q11. Which of the following is a real number?

A. $\sqrt{7}$

B. $5/9$

C. -3

D. All of these

Q12. What is the value of $|-8|$?

A. -8

B. 0

C. 8

D. 16

Q13. Which number lies between $-1/2$ and $1/4$?

A. $-3/4$

B. $-1/4$

C. $1/2$

D. $3/4$

Q14. The product of two negative integers is:

A. Positive

B. Negative

C. Zero

D. Always 1

Q15. The sum of a number and its additive inverse is:

A. 1

B. -1

C. The number itself

D. 0

Q16. What is $(-12) \times 5$?

A. -60

B. 60

C. -17

D. 17

Q17. What is $0 - (-14)$?

A. -14

B. 0

C. 14

D. 28

Q18. Which fraction has a terminating decimal expansion in lowest form?

- A. $\frac{2}{15}$ B. $\frac{7}{20}$ C. $\frac{5}{12}$ D. $\frac{4}{21}$

Q19. The denominator of a rational number in lowest form has only the prime factors 2 and 5. Its decimal expansion will be:

- A. Always irrational B. Terminating
C. Non-terminating and non-repeating D. Always an integer

Q20. Which of the following is equal to $0.333\dots$?

- A. $\frac{1}{2}$ B. $\frac{1}{3}$ C. $\frac{3}{10}$ D. $\frac{3}{11}$

Q21. Which statement about irrational numbers is correct?

- A. They can always be written as $\frac{p}{q}$
B. Their decimal expansions terminate
C. Their decimal expansions are non-terminating and non-repeating
D. They are all negative

Q22. Which of the following is a perfect square?

- A. 18 B. 24 C. 36 D. 50

Q23. $\sqrt{49}$ is:

- A. Irrational B. Rational
C. Non-real D. Non-terminating

Q24. If $x = -5$ and $y = 3$, then $x + y$ equals:

- A. -8 B. -2 C. 2 D. 8

Q25. Which statement is true?

- A. Every integer is a rational number
B. Every irrational number is an integer
C. Every rational number is an integer
D. Zero is not a real number

ANSWER KEY

Question	Correct Option	Answer
1	B	{1, 2, 3, 4, ...}
2	C	0
3	C	0
4	C	Positive numbers, negative numbers and zero
5	B	They are not closed under subtraction
6	C	$\frac{3}{7}$
7	B	$\frac{p}{q}$, where p and q are integers and $q \neq 0$
8	C	$\sqrt{2}$
9	C	0.333...
10	C	0.101001000100001...
11	D	All of these
12	C	8
13	B	$-\frac{1}{4}$
14	A	Positive
15	D	0
16	A	-60
17	C	14
18	B	$\frac{7}{20}$
19	B	Terminating
20	B	$\frac{1}{3}$
21	C	Their decimal expansions are non-terminating and non-repeating
22	C	36
23	B	Rational
24	B	-2
25	A	Every integer is a rational number

Chapter coverage: natural numbers, zero, integers, rational and irrational numbers, real numbers, number line, absolute value, operations with integers, rational numbers between two numbers, and terminating/non-terminating decimal expansions.