

○ *Class 7 Mathematics Practice Worksheet**Chapter 1 Integers*

- Section A: Conceptual Section (5 Questions)
- Q1. Write down the additive inverse of the following integers:
 - (a) $-45 =$ _____
 - (b) $102 =$ _____
 - (c) $0 =$ _____
- Q2. Fill in the blanks using the properties of integers:
 - (a) $(-13) + 27 = 27 + (\quad)$
 - (b) $(-53) + \text{_____} = -53$
 - (c) $25 \times (\quad) = -25$
- Q3. State whether the following statements are True or False:
 - (a) Multiplication of two negative integers is always a negative integer. (☐)
 - (b) Division of any integer by zero gives zero. (☐)
 - (c) For any integer a , $a \div 1 = a$. (☐)
- Q4. Solve the following using simple operational rules:
 - (a) $(-20) + (-10) =$ _____
 - (b) $(-35) - (-15) =$ _____
 - (c) $(-12) \times (-5) =$ _____
- Q5. Solve this division problem and show your steps below:
 $(-48) \div [(-16) \div 2]$

- Section B: Logical Section (5 Questions)
- Q6. A submarine starts at sea level (0 metres). It descends into the ocean at a steady speed of 6 metres every minute.
 - (a) Write its position as an integer after 8 minutes: _____ metres.

(b) How many minutes will it take to reach a position of -90 metres?

_____ minutes.

- Q7. Look at the number pattern below and fill in the next three missing integers:

11, 6, 1, -4, _____, _____, _____

What is the rule of this pattern? _____

- Q8. If the product of two integers is -60 and one of the integers is 12, what is the value of the other integer?

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- Q9. In a game, spinning a green arrow gives you +5 points, and spinning a red arrow gives you -3 points. Rahul spins the green arrow 4 times and the red arrow 6 times. What is his total final score?

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- Q10. Replace the question mark (?) with <, >, or = to make the statement true:

$[(-8) + (-4)] ? [(-8) - (-4)]$

- Section C: High Thinking Section / HOTS (5 Questions)

- Q11. A multi-story building has a special elevator. It starts on the Ground Floor (0). It goes up 14 floors, comes down 8 floors, goes up another 5 floors, and finally drops 12 floors. Which floor is the elevator sitting on now? Represent your work with an integer equation.

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- Q12. Find a pair of integers whose:

(a) Sum is -8 and difference is 2: (_____ ,)

(b) Product is -16 and sum is -6: (, _____)

- Q13. A freezing machine lowers the temperature of a lab room from 30°C at a constant rate of 4°C every hour. What will the temperature of the room be after 12 hours have passed?

- Q14. Solve the expression using the distributive property to make your calculation easy:

$$725 \times (-35) + (-725) \times 65$$

- Q15. Think carefully: Can you find any non-zero integer a where $a \div (-a) = 1$? Explain why or why not using an example.

- Answer Key (For Teachers and Parents)

- Section A:

Q1: (a) 45, (b) -102, (c) 0

Q2: (a) -13, (b) 0, (c) -1

Q3: (a) False, (b) False, (c) True

Q4: (a) -30, (b) -20, (c) 60

Q5: Bracket first: $(-16) \div 2 = -8$. Next divide: $(-48) \div -8 = 6$.

- Section B:

Q6: (a) $8 \times (-6) = -48$ metres. (b) $(-90) \div (-6) = 15$ minutes.

Q7: Next numbers: -9, -14, -19. Rule: Subtract 5 from the previous number.

Q8: Other integer = $(-60) \div 12 = -5$.

Q9: Green score: $4 \times 5 = 20$. Red score: $6 \times (-3) = -18$. Total score: $20 + (-18) = 2$ points.

Q10: Left side is -12. Right side is -4. Answer is $<$.

- Section C:

Q11: Equation: $0 + 14 - 8 + 5 - 12 = -1$. The elevator is on the 1st floor basement.

Q12: (a) -3 and -5. (b) -8 and 2.

Q13: Temperature drop: $12 \times (-4) = -48^\circ\text{C}$. Final temperature: $30 + (-48) = -18^\circ\text{C}$.

Q14: Take out common factor: $725 \times [(-35) + (-65)] = 725 \times [-100] = -72,500$.

Q15: No. Any non-zero number divided by its opposite sign partner always equals -1 (e.g., $5 \div (-5) = -1$).