

Subject: Mathematics

Class: 7

Topic: Multiplication and Division of Integers (Sign Rules)

Levels: Basic, Intermediate, Advanced

Level: Basic

1. Find the product: $(-12) \times 5 =$ _____.
2. Solve the division: $(-45) \div (-9) =$ _____.
3. Calculate: $15 \times (-4) =$ _____.
4. A negative integer multiplied by another negative integer gives a _____ (Positive/Negative) result.
5. Evaluate: $(-100) \div 4 =$ _____.
6. Fill in the blank: $(-7) \times$ _____ $= 42$.
7. Rahul owes ? 50 to each of his 3 friends. Represent his total debt as an integer: _____.
8. Find the value of: $0 \div (-18) =$ _____.
9. Multiply: $(-1) \times (-1) \times (-1) =$ _____.
10. True or False: The division of a positive integer by a negative integer is always negative. [?]

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Level: Intermediate

1. An elevator descends into a mine shaft at 6 m/min. If it starts from 10m above ground, what is its position after 20 mins? [?]
2. Find the product using properties: $26 \times (-48) + (-48) \times (-36) = \underline{\hspace{2cm}}$.
3. A shopkeeper earns a profit of ₹ 5 by selling one pen and incurs a loss of ₹ 2 per pencil. In a month, he sells 20 pens and 30 pencils. Net Profit/Loss: $\underline{\hspace{2cm}}$.
4. Solve: $[(-36) \div 12] \div 3 = \underline{\hspace{2cm}}$.
5. Evaluate the expression: $(-20) \times (-2) + (-14) \div 7 = \underline{\hspace{2cm}}$.
6. In a test, (+5) marks are given for correct answers and (-2) for incorrect ones. Anita scored 30 marks by getting 10 correct answers. How many questions did she miss? [?]
7. The temperature at noon was 10°C above zero. If it decreases at 2°C per hour until midnight, at what time would it be 8°C below zero?
8. Multiply: $(-15) \times 0 \times (-18) = \underline{\hspace{2cm}}$.
9. Verify the property: $a \times (b + c) = (a \times b) + (a \times c)$ for $a = -2$, $b = 3$, $c = 5$. [?]
10. Determine the integer whose product with (-1) is 47: $\underline{\hspace{2cm}}$.

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1. If the product of two integers is -150 and one of them is 25, find the other integer: _____.
2. A certain freezing process requires that room temperature be lowered from 40°C at the rate of 5°C every hour. What will be the room temperature 10 hours after the process begins?
3. Find the value of 'x' if: $x \times (-12) = -7$. [?]
4. Simplify: $(-5) \times [6 + (-10)] \div 2 =$ _____.
5. Is $[(-6) + 5] \div [(-2) + 1]$ same as 1? Show calculation: _____.
6. A diver descends 25 feet per minute. Use an integer to represent the total change in depth after 12 minutes: _____.
7. If $??3$ (for simple calculation), what is the result of $(-?) \times 4$? _____.
8. Write a pair of integers whose product is -36 and whose difference is 15: _____.
9. Suppose we represent distance above sea level with a (+) sign. A plane is at 5000m and a submarine is at -800m. What is the vertical distance between them? [?]
10. Challenge: If $n^2 = 64$, find the two possible values of 'n' that are integers: _____.