



THE HAMILTON ACADEMY

Class 7 Mathematics

Section - A

1. Vivek purchased $3\frac{2}{5}$ kg of Apple and $2\frac{1}{3}$ kg of Mangoes. What is Total weight of fruits purchased by vivek?
(a) $71/15$ (b) $67/12$ (c) $86/15$ (d) $93/15$
2. What is the mode for the given set of numbers: 3,5,4,4,2,1,4,2,3,6,1,4?
(a) 3 (b) 4 (c) 2 (d) 1
3. What is the additive identity of integers?
(a) -1 (b) 0 (c) 1 (d) 2
4. What is complementary angle of 35 degree?
(a) 55 (b) 65 (c) 60 (d) 45
5. $(-2) + [10 + (-5)] = [2 + 10] - \dots\dots\dots$
(a) -5 (b) 5 (c) -9 (d) 9
6. If $3n - 11 = 16$, then what is number 'n'?
(a) 4 (b) 8 (c) 6 (d) 9
7. Exponential form of 1000 is
(a) 10 (b) 10^2 (c) 10^3 (d) 10^4
8. Two angles forming a linear pair are
9. $-4 * (5 + 3) = (-4 * 5) + \dots\dots\dots$
10. $\frac{2}{5} \times \frac{1}{3} = \dots\dots\dots$

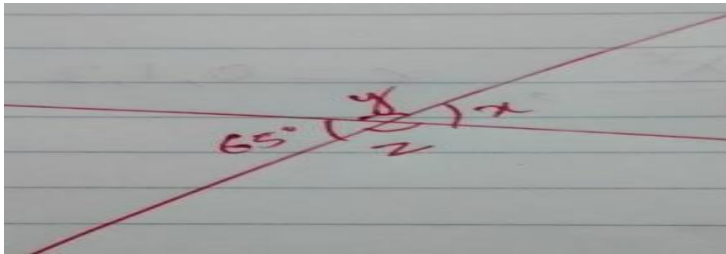
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11. Reciprocal of 5 is
12. Sum of length of two sides in a triangle is third side.
13. $(-3) \times \dots = 21$
14. $5^0 = \dots$
15. $3\frac{1}{5}$ can be written as a mixed fraction.

Section - B

16. Express in exponential notation
- (a) $a^2 a^3 b^2 b^3 c^2 a$ (b) $3^2 3^3 p^2 p^3 r^2 q^2 p^3 r$
17. Out of 340 students in a school, only 280 students attended class on a particular day. What fraction of students attended the class?
18. If 14 is subtracted from thrice a number then it gives the same number and twelve. What is the number?
19. What is the exterior angle in any equilateral triangle?
20. Here is the age of teachers in a particular school: 19yr, 20yr, 24yr, 22yr, 36yr, 30yr, 26yr. What is the minimum and maximum age of teachers in that school?
21. Write a positive integers and a negative integer whose difference is -3.
22. Express the following terms in exponential forms:
(a) $(3 \times 7)^3$ (b) $(-2p)^4$
23. Express 756 as a product of prime factor only in exponential form?
24. Which of the following is greater $\frac{2}{5}$ of $\frac{4}{7}$ or $\frac{6}{7}$ of $\frac{3}{5}$?
25. Find mode and median of 102, 108, 104, 102, 105, 105, 109, 107, 105. Are they same?
26. Write 4 pair of supplementary angles.

Section - C

27. Is there exists a triangle with 2.4 cm, 5.1 cm and 7.5cm as its sides. Explain how?
28. Construct a triangle of 4 cm, 6cm and 9cm as it sides.
29. Solve $8^2 \div 2^3$.
30. A car travels $3\frac{1}{3}$ km in 1 liter of petrol. How much it travels in $\frac{3}{2}$ liters?
31. Explain commutative property of multiplication in integers using one example?
32. Find x, y and z in following figure:



33. Which one is greater $(4)^3 \times 5$ or $(4^3)^5$. Explain how?
34. In a class there are 40 students. If average marks obtained by all the 40 student in math's is 52. Find the sum of marks obtained by all the students.
35. Find the mean of: $\frac{2}{3}$, 4, $\frac{5}{9}$, $\frac{4}{3}$ and 1?
36. Triangle ABC is a right angled at C, If AC = 6cm and BC = 8cm then how much is AB?
37. Arrange them in ascending order $\frac{4}{5}$, $\frac{2}{3}$, $\frac{5}{9}$ and $\frac{3}{7}$?

Section - D

38. Verify $(-21) \times [13 + (-5)] = [(-21) \times 13] + [(-21) \times (-5)]$
39. A tree is broken at height of 12 m from ground. Peak of the tree touches the ground at a distance of 9m from the tree. Find length of tree.
40. Construct a right angled triangle ABC where angle C = 90, CB = 3cm and AB = 5cm.

41. Draw the double graph for marks obtained by a child:

Subject	Math	English	Science	Hindi
Term 1	62	68	52	50
Term 2	75	65	59	45

42. Ramesh's father's age is 7 years more than five times Ramesh's age. Find Ramesh's age, if his father is 42 years old?