

P.S. SENIOR SECONDARY SCHOOL

STD: VII

MATHEMATICS WORKSHEET APRIL 2020

1. A bird watcher on a cliff spotted a kingfisher 7 m above him. Earlier he had seen it 11 m below. What was the kingfisher's change in altitude?
2. An architectural drawing of a building shows the elevation of the basement floor to be - 4m. The elevation of the roof is 10m. What is the total distance from the roof to the basement floor?
3. A tanker contains 452 litres of milk. Due to leakage in the tanker, the quantity of milk in it decreases at the rate of 12 litres per hour. How much milk will be left in the tanker after 11 hours?
4. A fruit seller bought 300 fruits. Out of these,  $\frac{2}{5}$  of the fruits were mangoes and the rest were apples.  $\frac{2}{15}$  of the apples were rotten. He sold the good apples at ₹ $4\frac{1}{13}$  each. How much money did he receive on selling the good apples?
5. For the data 1, 5, 7, x+1, 9, x-2, 3, if the mean is 4, then find the value of x. Hence, find the mode.
6. Solve:  $\frac{2}{3}(4x - 1) - \left(2x - \frac{1+x}{3}\right) = \frac{1}{3}x + \frac{4}{3}$
7. Mrs. Arora left one-fourth of her property for her son, two-thirds for her daughter and the remainder for her niece. If her niece's share is ₹700000, what was the worth of her total property?
8. Two poles having heights 7m and 13m, respectively, are placed on the same level, 8m apart from each other. What is the distance between their tops?
9. The lengths of the diagonals of a rhombus are 12cm and 16cm. Calculate the perimeter of the rhombus.
10. A 27m long wire is used to anchor a 12m high flagstaff. The foot of the flagstaff is 35 m away from the point the wire would be tied on the ground. The length of the wire fell short by a few metres. Determine the remaining length of the wire required to anchor the flagstaff.
11. The yield of wheat from 3 hectares is 112.5 quintals. Find the number of hectares required for a yield of 375 quintals of wheat.
12. The simple interest on a certain sum of money for 2 years 5 months at 12% per annum is ₹650 more than the simple interest on the same sum for 2 years at 8% per annum. Find the sum.
13. Divide ₹11600 into two parts such that the simple interest on the first part for 3 years at 5% per annum is equal to the simple interest on the second part for 5 months at  $7\frac{1}{2}\%$  per annum.
14. Swarna gave  $\frac{1}{4}$  of her pocket money to her brother. Out of the remaining money she spent  $\frac{1}{3}$  for buying a book and  $\frac{1}{6}$  for watching a movie. She donated the rest of the money for charity. What fraction of her pocket money did she donate?
15. A mass of 500 kg of mortar has 55% sand, 60 kg of lime and rest cement. What percent of cement is there in the mortar?
16. The area of four walls of a room is  $144 \text{ m}^2$ . If the length of the room is twice its breadth and the height is 4m, then find the area of the floor.
17. Find the area of an equilateral triangle, each of whose side is 10cm.
18. A race track is in the form of a ring. The inner circumference of the race track is 352m and the outer circumference is 396m. Find the width of the track.
19. Find the area of the quadrant of a circle whose circumference is 22m.
20. If  $49^{2x-1} = (343)^6$ , then find the value of  $5^{3x-13}$ .