P.S.SENIOR SECONDARY SCHOOL

CLASS 8 MATHEMATICS WORK SHEET -1

1. A sheet of rectangular paper measures 20 cm x 15 cm. It can be rolled up along either sides to form two cylinders A & B. Which cylinder has a greater volume?

2. ABCD is a rhombus in which the altitude from D to the side AB bisects it at E. Find the measures of the angles of the rhombus.

3. The distance between Delhi and Ahmadabad is approximately 1000 km. A train which runs at a speed of 80 km per hour takes $12\frac{1}{2}$ hours to reach Ahmadabad from Delhi If it runs at a speed of 100 km per hour, how much time will it take?

4. Ravi has three boxes of different fruits. Box A weighs 2.5 Kg more than box B and box C weighs 10.25Kg more than box B. The total weight of the three boxes is 48.75Kg. How much does box A, B & C weigh?

5. A cuboid has dimensions of 12cm x 10 cm x 8 cm. Find its volume, total surface area & area of four walls.

6. Simplify: $\frac{1}{1+x^{-m}} + \frac{1}{1+x^{m}}$.

7. Construct a quadrilateral PQRS in which QR = 4.5cm, PR = PQ= 5.5cm RS= 5cm and QS= 7cm.

8. Draw a graph for the equation y = 4x+2.

9. Box A contains 25 slips of 19 are marked with Re.1 each and others are marked Rs. 5 each. Box B contains 50 slips of which 45 are marked with Re.1 each and others are marked Rs. 13 each. Slips of both the boxes are poured in a third box and reshuffled. A slip is drawn at random. What is the probability that it is marked that other than Re.1?

10. From a 44m long rope, as many pieces as possible are cut off, each $5\frac{1}{6}$ m long. Find the number of pieces and length of the remaining rope.

11. If x + y = 7 and xy = 3, find the value of $x^2 + y^2$.

12. On an Independence day, the students of a school represented a drill. There were 2^{x-1} rows of students and in each row there were 2^{x+3} students. If 1024 students to part in the drill, find the number of rows of the students.

13. Evaluate: $6^3 + 7^3 + 8^3 + 9^3 + 10^3$ using the property.

14. Factorize: $16 - p^2 – q^2 – 2pq$.

15. A man was engaged as a typist for the month of February in 2016. He was paid Rs. 500/- per day but Rs.100/- per day was deducted for the days he remained absent. He received Rs. 9,100/- as salary for the month. How many days did he work?

16. A cistern has two inlets A and B which can fill in 12 hours and 15 hours respectively. An outlet C can empty the full cistern in 10 hours. If all the three pipes are opened together, find how much time will be taken to fill the cistern completely.

17. A worker is paid Rs. 139.20 for three days (1). What will he get in the month of June (2) How many days will he work for Rs. 696/-

18. The average daily temperature of 30 cities (in degree celsius) is as follows: 17.2, 19.5, 31.1, 14.5, 19.6, 20.8, 11.3, 15.9, 23.7, 13.8, 12.6, 15.4, 20.2, 11.8, 14.2, 13.6, 20.8, 30.4, 28.5, 23.4, 20.8, 26.2, 27.1, 24.9, 12.3, 19.4, 16.7, 14.0,15.9,16.0. Choosing the class interval, 11—15, 15—19, ….draw a histogram.

19. Rahul spent Rs. 5,200/- on buying an old monitor. He spent Rs. 1,300/- on installing antivirus and Rs. 1,200/- on installing some new software in it. After one month Rahul planned to sell it off. He suffered a loss of 4 %. Find the price at which he sold it. What would have been the selling price to gain a profit of 8 %?

20. A area of a trapezium is $15.4m^2$. If one of the parallel sides 5m less than twice the other parallel side, and the distance between them is 1.4m, find the length of both the parallel sides.