NEW AL WUROOD INTERNATIONAL SCHOOL, JEDDAH, K.S.A
Affiliated to CBSE – New Delhi

ANNUAL EXAMINATION 2017-18

SUBJECT: MATHEMATICS

WORKSHEET-1

Class: VII **Time: 2 Hours**

1. Arrange the following rational numbers in ascending and descending order:

   (i) $\frac{-5}{3}, \frac{-4}{3}, \frac{-4}{5}, \frac{1}{7},$ (ii) $\frac{-3}{21}, \frac{2}{7}, \frac{13}{-3}, \frac{10}{21}$ (iii) $\frac{-2}{3}, \frac{1}{2}, \frac{-12}{10}, \frac{7}{15}$

2. Write the degree of the following algebraic expressions:

   (i) $3x^2y + x^2y^2 + xy^4$ (ii) $pq^2r + 3pqr^2 - 6p^2q^2r + 7p^2qr^3$

3. Construct ΔPQR if PQ = 5 cm, ∠PQR = 75^0 and ∠QRP = 45^0.

4. A wire is in the shape of a square of a side 15 cm. If the wire is rebent into a rectangle of length 12 cm, find its breadth

5. What should be added to $\frac{-5}{7}$ to get 0?

6. Find the value of the expression $2xy + x^2 - y^2$ when $x = 2$ and $y = 3$.

7. What should be subtracted from $7x^2 - 2y^2 - 6xy + 4$ to get $2y^2 + 2x^2 - 1 + 2xy$?

8. A parallelogram has height 5.6m and area 70 m^2. Find the length of its base

9. Find five rational numbers between:

   (ii) $\frac{-1}{3}$ *and* $\frac{2}{7}$ (ii) $\frac{2}{3}$ *and* $\frac{4}{3}$

10. A tree is broken at a height of 5 m from the ground and its top touches the ground at a distance of 12 m from the base of the tree. Find the original height of the tree.

11. A 3 m wide path runs outside and around a rectangular park of length 125 m and breadth 65 m. Find the area of the path.

12. Find the value of :

(i) $\left(\frac{-8}{18}\right) \div \left(\frac{104}{-108}\right)$ (ii) $\frac{-3}{8} \div 7$ (iii) $\frac{-7}{9} \times (-2)$ (iv) $\frac{3}{10} \times \left(\frac{-5}{2}\right)$

13. Write each of the following in exponential form:

(i) $3 \times 3 \times 3 \times 7 \times 7 \times 7 \times 7$ (ii) $2 \times 2 \times 2 \times 2 \times 5 \times 5 \times 7$

14. From the sum of $11x^3 - 3y^2 + 8$ and $2x^3 + 12y^2 - 1$, subtract the sum of $9x^3 + y^2 - 1$ and $3x^3 + 3y^2 + 18$

15. Express the following numbers in the standard form:

(i) 5985.3 (ii) 8,428,900 (iii) 89,840,000,000

16. A ladder of length 17 m is placed such that its foot is 8 m far from a vertical wall of height 100 m. How high the ladder can reach on the wall?

17. Which is larger 2^9 or 9^2 ?

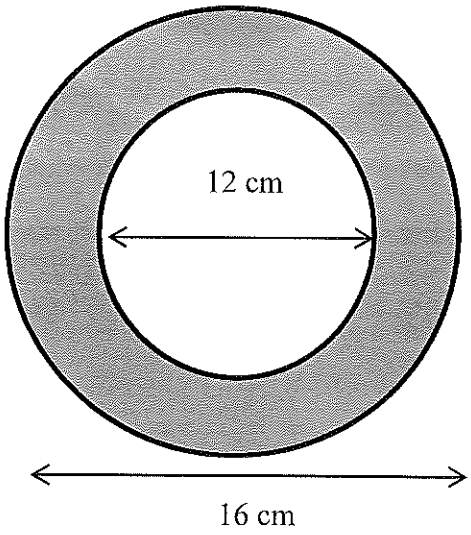
18. Find the mean, median, mode and range of the data:

64, 61, 52, 60, 64, 38, 48, 65

19. Express the following as product of their primes:

(i) 675 (ii) 360 (iii) 432

20. Find the area of the shaded region of the adjoined figure:



Checked