CLASS NOTES

Class: VII	Topic: WORKSHEET – 1
Subject: MATHEMATICS	

1. 0.03 is equal to
   a. 3%
   b. 30%
   c. 0.3%
   d. 0.03%
2. The percentage of 11 out of 20 is:
   a. 96%
   b. 72%
   c. 55%
   d. 65%
3. The reciprocal of rational number 7/2 is:
   a. 2/7
   b. -2/7
   c. 2/-7
   d. -2/-7
4. The additive inverse of the rational number 4/9 is
   a. 9/4
   b. –9/4
   c. –4/9
   d. 0
5. The value of $-6 \div \left(\frac{18}{9}\right)$ is :
   a. 51/4
   b. – 3
   c. 3
   d. – 1/3
6. If a parallelogram is 15m² and its base is 10m, then its height is:
   a. 150m
   b. 1.5m
   c. 75m
   d. 7.5cm
7. A circular swimming pool with diameter 35m, has the circumference of :
   a. 110m
   b. 55m
   c. 100m²
   d. 220m
8. -1^{105} is equal to:

a. 1
   b. − 1
   c. 105
   d. −105
9. The value of the expression $a^2 + 3a − 5$ when a=2 is:
   a. 5
   b. 15
   c. − 5
   d. − 10
10. In the expression $xy^3 − 6x^2yz^2 + 28xy^3$, the coefficient of $−6x^2yz^2$ is:
    a. 6
    b. − 6
    c. $−6x^2yz^2$
    d. 1
11. The value of x in $3^3 \times 3^5 = 3^x$ is:
    a. 4
    b. 6
    c. 8
    d. 15
12. The value of $(− 3)^0$ is:
    a. −1
    b. 1
    c. 0
    d. −3
13. Rectangle has _ _ _ _ lines of symmetry
    a. 0
    b. 1
    c. 2
    d. 3
14. A square has rotational symmetry of order _ _ _
    a. 1
    b. 2
    c. 3
    d. 4
15. Area of a parallelogram = _ _ _
    a. $\frac{1}{2}$ x b x h
    b. $2(l + b)$
    c. b x h
    d. Πr^2

1. Last year a club had 25 members. This year it has 30 members. Find the percentage increase in the club.
2. What rate will give Rs 280 as interest on a sum of Rs 56,000 in 2 years?
3. Gaurav had ½ litre of milk. He used 1/3 litre of milk for making the pudding. How much milk is left with him now?
4. Suman wants to distribute a $4\frac{1}{2}$ kg dry fruit pack equally among her three friends. How much dry fruit will each friend get?
5. Parul wants to tie a rope twice around a circular swimming pool. The radius of the swimming pool is 21 metres. Find the length of the rope she needs to purchase.
6. A parallelogram has sides of 20cm and 15cm. The distance between the 20 cm sides is 18 cm. Find the distance between the 15cm sides.
7. Subtract 4a – 2b + 7c from 8a + 7b – c
8. If p = –2, find the value of $-3p^2 + 4p + 7$
9. Compare 2.7×10^{12} and 1.5×10^8
10. Simplify:
    a. $\dfrac{2^3 \times 3^4 \times 4}{3 \times 32}$
    b. $\dfrac{3 \times 7^2 \times 11^8}{21 \times 11^3}$
    c. $2^0 \times 3^0 \times 4^0$
    d. $(2^3 \times 2)^2$
11. What letters of the English alphabet have reflectional symmetry about
    i)   Vertical mirror
    ii)   Horizontal mirror
    iii) Both horizontal and vertical mirror
12. Name a quadrilateral that has
    i)   0 lines of symmetry
    ii)   1 line of symmetry

    iii)   2 lines of symmetry

13.   Name and draw the shadow that you might get when you throw light on following objects:

a) A ball
b) A dice
c) A birthday cap
d) A book
e) A cylindrical glass

14.   What cross section do you get when the following solids are cut by:

(a) Vertical cut – a solid sphere, an ice cream cone
(b)   Horizontal cut – a dice, a round apple

15.   Show the terms and factors of the given expression using tree diagram:

a. $5x^2y - 3y + 4$
b. $a^2b^2c - 16b^3$