

Class Notes	
Class: VIII	Topic: WORKSHEET -1(OBJECTIVE)
Subject: MATHEMATICS	

CHOOSE THE CORRECT OPTION:

Q1. Comparison of parts of a whole may be done by a

- (a) bar graph (b) pie chart (c) linear graph (d) line graph

Q2. The probability of getting a multiple of 2 when a dice is rolled is

- (a) $\frac{1}{6}$ (b) $\frac{1}{3}$ (c) $\frac{1}{2}$ (d) $\frac{2}{3}$

Q3. The ratio of 10m to 10 km is:

- (a) $\frac{1}{10}$ (b) $\frac{1}{100}$ (c) $\frac{1}{1000}$ (d) None of these

Q4. If marked price of an article is Rs 1,200 and the discount is 12% then the selling price of the article is

- (a) Rs 1,056 (b) Rs 1,344 (c) Rs 1,212 (d) Rs 1,188

Q5. An item marked at Rs. 840 is sold for Rs. 714. The discount % is:

- (a) 10% (b) 15% (c) 20% (d) 25%

Q6. Volume of a rectangular box (cuboid) with length = $2ab$, breadth = $3ac$ and height = $2ac$ is

- (a) $12a^3bc^2$ (b) $12a^3bc$ (c) $7a^3bc^2$ (d) $2ab + 3ac + 2ac$

Q7. Area of a rectangle with length $4ab$ and breadth $6b^2$ is

- (a) $24a^2b^2$ (b) $24ab^3$ (c) $24ab^2$ (d) $24ab$

Q8. A cube of side 5 cm is painted on all its faces. If it is sliced into 1 cubic centimeter cubes, how many 1 cubic centimeter cubes will have exactly one of their faces painted?

- (a) 27 (b) 42 (c) 54 (d) 142

Q9. The volume of a cube is 64 cm^3 . Its surface area is

- (a) 16 cm^2 (b) 64 cm^2 (c) 96 cm^2 (d) 128 cm^2

Q10. Three cubes each of side 10 cm are joined end to end. Find the surface area of the resultant cuboid.

- (a) 1400 cm^2 (b) 600 cm^2 (c) 1000 cm^2 (d) 1800 cm^2

Q11. The standard form for 0.000064 is

- (a) 64×10^4 (b) 64×10^{-4} (c) 6.4×10^5 (d) 6.4×10^{-5}

Q12. The multiplicative inverse of 10^{-100} is

(a) 1000 (b) 100^{10} (c) 10^{100} (d) 10^{-100}

Q13. The usual form for 2.03×10^{-5}

(a) 0.203 (b) 0.00203 (c) 203000 (d) 0.0000203

Q14. If two quantities x and y vary directly with each other, then

(a) x/y remains constant. (b) $x - y$ remains constant.
(c) $x + y$ remains constant. (d) $x \times y$ remains constant.

Q15. Which of the following vary inversely with each other?

(a) speed and distance covered. (b) distance covered and taxi fare.
(c) distance travelled and time taken. (d) speed and time taken.

Q16. The factorization of $p^2 - 17p - 38$ is

(a) $(p - 19)(p + 2)$ (b) $(p + 19)(p + 2)$
(c) $(p - 19)(p - 2)$ (d) $(p + 19)(p - 2)$

Q17. The factorization of $23xy - 46x + 54y - 108$ is

(a) $(23x + 54)(y - 2)$ (b) $(23xy + 54y)(-46x - 108)$
(c) $(23x + 54y)(y - 2)$ (d) $(23x + 54)(y + 2)$

Q18. The quotient of $12a^8b^8 + (-4a^6b^6)$ is

(a) $3a^2b^2$ (b) $3a^2b$ (c) $3ab^2$ (d) $-3a^2b^2$

FILL IN THE BLANKS

- _____ is a reduction on the marked price of the article.
- Discount = _____ - _____.
- The discount percent is calculated on the _____ price of an article.
- Area of a rhombus = $1/2$ product of _____.
- A car is travelling 48 km in one hour. The distance travelled by the car in 12 minutes is _____.
- A _____ graph displays data that changes continuously over periods of time.
- The relation between dependent and independent variables is shown through a _____.

Class Notes	
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CHAPTER -4

Q1. A die is thrown. What is the probability of getting:

- (i) a prime number?
- (ii) an odd number?
- (iii) A number greater than 3?

Q2. The number of students admitted in different faculties of a college are given below.

Faculty	Commerce	Arts	Science	Law	Computer	Total
Number of students	450	300	1200	1000	650	3600

Represent the above information by a pie-chart.

Q3. A bag contains 5 blue and 3 red balls. A ball is drawn at random. What is the probability of drawing a red ball?

CHAPTER -7

Q4. A fan is marked at Rs 15600 and it is available for Rs 12480. Find the discount given and discount percent

Q5. There are 24% of boys in a school. If the number of girls is 456, find the total number of students in the school.

Q6. A watch was bought for ₹ 2,700 including 8% VAT. Find its price before the VAT was added.

Q7. Find the amount if ₹ 2,000 is invested for 2 years at 4% p.a. compounded annually.

CHAPTER -8

Q8.Add:

$$8x^2 + 7xy - 6y^2, 4x^2 - 3xy + 2y^2 \text{ and } -4x^2 + xy - y^2$$

Q9.Subtract:

$$3x^2 - 5x + 7 \text{ from } 5x^2 - 7x + 9$$

Q10. Multiply

$$(2x - 2y - 3) \text{ and } (x + y + 5)$$

CHAPTER -9

Q11. A box is in the form of cuboid of dimensions (80 x 30 x 40) cm. The base ,the side faces and back faces are to be covered with a coloured paper. Find the area of paper needed.

Q12. A road roller takes 750 complete revolutions to move once over to level a road. Find the area of the road if the diameter of a road roller is 84 cm and length is 1 m.

Q13. If each side of a cube is tripled, how many times will its surface area increase?

Q14. Two cubes are joined end to end. Find the volume and surface area of the resulting cuboid, if each side of the cubes is 6 cm.

CHAPTER -10

Q15. Express 4^{-5} as a power with base 2

Q16. Find the value of

(i) $(4^0 + 4^{-1}) \times 2^2$

(ii) $(3^{-1} \times 9^{-1}) \div 3^{-2}$

(iii) $(2^{-1} + 3^{-1} + 4^{-1})^0$

Q17. Find the value of m so that $(\frac{3}{4})^{-2} \times (\frac{3}{4})^{-14} = (\frac{3}{4})^{8m}$.

Q18. If the thickness of a paper sheet is 0.0018 cm, find the thickness of 50 sheets. Express the answer in standard form.

CHAPTER -11

Q19. A car takes 1.5 hours to reach a destination by travelling at the speed of 80 km/h. How long will it take when the car travels at the speed of 60 km/h ?

Q20. A farmer has enough food to feed 30 animals in his cattle-farm for 4 days, How long would the food last if there were 10 less animals in his farm?

Q21. Rahul has a road map with a scale of 1 cm = 18 km. He drives on a road for 81 km. What would be his distance covered in the map?

CHAPTER -12

Q22. Factorise :

(i) $ax^3y^2 + bx^2y^3 + cx^2y^2z$

(ii) $x - 9 + 9zy - xyz$

(i) $p^2 - 8p + 16$

(iv) $121x^2 + 44xy + 4y^2$

(v) $54x^2 - 96y^2$

Q23. Divide:

(i) $63(p^4 + 5p^3 - 24p^2)$ by $9p(p + 8)$.

(ii) $10(x^3y^2x^2 + x^2y^3z^2 + x^2y^2z^3)$ by $5x^2y^2z^2$.

CHAPTER -13

Q24. Draw the graph for the following table of values of time (in hours) and distances (in km) covered by a car.

Time (in hours)	7:00 am	8:00 am	9:00am	10:00am
Distances (in km)	60	120	180	240

From the graph, find:

(i) The distance covered by the car during the period 7:00 am to 8:00 am.

(ii) At what time the car had covered a distance of 210 km?