

Assignment-1, Class 8th, Subject- Maths

Chapter-9. Algebraic Expressions and Identities

Q1. Subtract $5x^2 - 4y^2 + 6y - 3$ from $7x^2 - 4xy + 8y^2 + 5x - 3y$.

Q2. Subtract $3pq(p - q)$ from $2pq(p + q)$.

Q3. Subtract: $3l(l - 4m + 5n)$ from $4l(10n - 3m + 2l)$

Q4. $3a(a + b + c) - 2b(a - b + c)$ from $4c(-a + b + c)$

Q5: Simplify $(a + b)(2a - 3b + c) - (2a - 3b)c$.

Assignment-2, Class -8th ,Subject- Maths

Chapter-9. Algebraic Expressions and Identities

Q6. Simplify: $(1.5x - 4y)(1.5x + 4y + 3) - 4.5x + 12y$

Q7. Use the Identity $(x + a)(x + b) = x^2 + (a + b)x + ab$ to find the following:

(i) 501×502 (ii) 95×103

Q8. Using identities, evaluate. (i) 712 (ii) 992 (iii) 1022 (iv) 9982 (v) 5.22^2 (vi) 297×303 (vii) 78×82 (viii) 8.92 (ix) 10.5×9.5

Q9.. Using $a^2 - b^2 = (a + b)(a - b)$, find (i) $512 - 492$ (ii) $(1.02)^2 - (0.98)^2$ (iii) $1532 - 1472$ (iv) $12.12 - 7.92$

Q10.8. Using $(x + a)(x + b) = x^2 + (a + b)x + ab$, find (i) 103×104 (ii) 5.1×5.2 (iii) 103×98 (iv) 9.7×9.8

Assignment-3, Class- 8th, Subect-Maths

Chapter-11. Mensuration

Q1.: Find the area of a rhombus whose diagonals are of lengths 10 cm and 8.2 cm.

Q2. The area of a trapezium shaped field is 480 m^2 , the distance between two parallel sides is 15 m and one of the parallel side is 20 m. Find the other parallel side.

Q3. The area of a rhombus is 240 cm^2 and one of the diagonals is 16 cm. Find the other diagonal.

Q4. Find the area of a rhombus whose side is 5 cm and whose altitude is 4.8 cm. If one of its diagonals is 8 cm long, find the length of the other diagonal.

Q5. The floor of a building consists of 3000 tiles which are rhombus shaped and each of its diagonals are 45 cm and 30 cm in length. Find the total cost of polishing the floor, if the cost per m^2 is Rs. 4.

Assignment-4, Class -8th, Subject- Maths

Chapter-11. Mensuration

Q6. An aquarium is in the form of a cuboid whose external measures are $80 \text{ cm} \times 30 \text{ cm} \times 40 \text{ cm}$. The base, side faces and back face are to be covered with a coloured paper. Find the area of the paper needed?

Q7. The internal measures of a cuboidal room are $12 \text{ m} \times 8 \text{ m} \times 4 \text{ m}$. Find the total cost of whitewashing all four walls of a room, if the cost of white washing is Rs. 5 per m^2 . What will be the cost of white washing if the ceiling of the room is also whitewashed.

Q8.: Find the height of a cylinder whose radius is 7 cm and the total surface area is 968 cm^2 .

Q9. A flooring tile has the shape of a parallelogram whose base is 24 cm and the corresponding height is 10 cm. How many such tiles are required to cover a floor of area 1080 m^2 ? (If required you can split the tiles in whatever way you want to fill up the corners)

Q10. Find the side of a cube whose surface area is 600 cm^2 .

Assignment-5, Class- 8th, Subject- Maths

Chapter-11. Mensuration

Q11. The lateral surface area of a hollow cylinder is 4224 cm^2 . It is cut along its height and formed a rectangular sheet of width 33 cm. Find the perimeter of rectangular sheet?

Q12. Find the height of a cuboid whose volume is 275 cm^3 and base area is 25 cm^2 .

Q13. A rectangular piece of paper $11 \text{ cm} \times 4 \text{ cm}$ is folded without overlapping to make a cylinder of height 4 cm. Find the volume of the cylinder

. Q14. Find the height of the cylinder whose volume is 1.54 m^3 and diameter of the base is 140 cm ?

Q15. A milk tank is in the form of cylinder whose radius is 1.5 m and length is 7 m. Find the quantity of milk in litres that can be stored in the tank?

Q16. Water is pouring into a cuboidal reservoir at the rate of 60 liters per minute. If the volume of the reservoir is 108 m^3 , find the number of hours it will take to fill the reservoir.

Assignment-6. Class- 8th, Subject- Maths

Chapter-14. Factorisation

Q1. Factorise $4y^2 - 12y + 9$

Q2. Factorise $m^2 - 256$

Q3: Find the factors of $y^2 - 7y + 12$.

Q4. Find the factors of $3m^2 + 9m + 6$.

Q5. Factorise. (i) $4p^2 - 9q^2$ (ii) $63a^2 - 112b^2$ (iii) $49x^2 - 36$ (iv) $16x^2 - 144x^3$

(v) $(l + m)^2 - (l - m)^2$ (vi) $9x^2y^2 - 16$ (vii) $(x^2 - 2xy + y^2) - z^2$ (viii) $25a^2 - 4b^2 + 28bc - 49c^2$

Q6. Factorise. (i) $a^4 - b^4$ (ii) $p^4 - 81$ (iii) $x^4 - (y + z)^4$ (iv) $x^4 - (x - z)^4$ (v) $a^4 - 2a^2b^2 + b^4$

Q7. Divide $44(x^4 - 5x^3 - 24x^2)$ by $11x(x - 8)$

Assignment-7, Class- 8th, Subject- Maths

Chapter-13. Direct and Inverse Proportions

Q1: An electric pole, 14 meter high, casts a shadow of 10 metre. Find the height of a tree that casts a shadow of 15 metre under similar conditions.

Q2. A train is moving at a uniform speed of 75 km/hour. (i) How far will it travel in 20 minutes? (ii) Find the time required to cover a distance of 250 km

Q3. A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will it fill in five hours?

Q4. A 5 m 60 cm high vertical pole casts a shadow 3 m 20 cm long. Find at the same time (i) the length of the shadow cast by another pole 10 m 50 cm high (ii) the height of a pole which casts a shadow 5m long.

Q5. There are 100 students in a hostel. Food provision for them is for 20 days. How long will these provisions last, if 25 more students join the group?

Assignment-8, Class- 8th, Subject- Maths

Q6. If 15 workers can build a wall in 48 hours, how many workers will be required to do the same work in 30 hours?

Q7. If a box of sweets is divided among 24 children, they will get 5 sweets each. How many would each get, if the number of the children is reduced by 4?

Q8. A farmer has enough food to feed 20 animals in his cattle for 6 days. How long would the food last if there were 10 more animals in his cattle?

Q9. A car takes 2 hours to reach a destination by travelling at the speed of 60 km/h. How long will it take when the car travels at the speed of 80 km/h?

Q10. Two persons could fit new windows in a house in 3 days. (i) One of the persons fell ill before the work started. How long would the job take now?
(ii) How many persons would be needed to fit the windows in one day?

Assignment-9, Class- 8th, Subject- Maths

Chapter-15. Introduction to Graphs

Q1. State whether True or False. Correct that are false.

(i) A point whose x coordinate is zero and y-coordinate is non-zero will lie on the y-axis.

(ii) A point whose y coordinate is zero and x-coordinate is 5 will lie on y-axis.

(iii) The coordinates of the origin are (0, 0).

Q2. Draw the line passing through (2, 3) and (3, 2). Find the coordinates of the points at which this line meets the x-axis and y-axis.

Q3. Plot the point (4, 3) on a graph sheet. Is it the same as the point (3, 4)?

Assignment-10, Class- 8th, Subject- Maths

Chapter-16 Playing with Numbers

Q1. Check the divisibility of 21436587 by 9.

Q2. Check the divisibility of 152875 by 9.

Q3. If the three digit number $24x$ is divisible by 9, what is the value of x ?

Q4.: Check the divisibility of 2146587 by 3

Q5. If $21y5$ is a multiple of 9, where y is a digit, what is the value of y ?

Q6. If $31z5$ is a multiple of 3, where z is a digit, what might be the values of z ?

