

GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ

ASSIGNMENT-02

SESSION: 2020-21

CLASS: IX A, B, C, D, E

SUBJECT: MATHEMATICS

INSTRUCTIONS: The parents to ensure that their ward watches the video instructions for this assignment by clicking on the given link:

<https://youtu.be/it1jFWIBpR0>

She should revise the lesson given in the book and then work on the assignment. The completed assignment is to be downloaded and filed/pasted in the subject file/copy and kept ready for submission.

The day, date and procedure of submission shall be notified later.

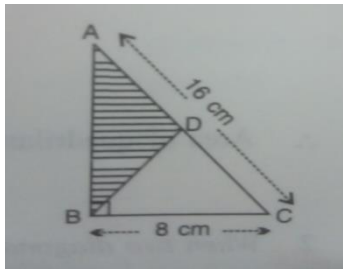
Reference book: Concise Mathematics Class IX- By R. K. Bansal.

Solve the following questions:

Q1. Find the area of a triangle whose sides are 18 cm, 24cm and 30 cm.

Q2. The lengths of the sides of a triangle are in the ratio 3:4:5. Find the area of the triangle if its perimeter is 144 cm.

Q3. The given figure shows a right-angled triangle ABC and an equilateral triangle BCD. Find the area of the shaded portion.



Q4. The base of a triangular field is three times its height. If the cost of cultivating the field at Rs 36.72 per 100 m² is Rs 49,572; find its base and height.

Q5. If the difference between the sides of a right-angled triangle is 3 cm and its area is 54 cm²; find its perimeter.

Q6. The diagonals of a quadrilateral are 16 cm and 13 cm. If they intersect each other at right angles; find the area of the quadrilateral.

Q7.How many tiles, each of area 400cm^2 , will be needed to pave a footpath which is 2m wide and surrounds a grass plot 25 m long 13m wide?

Q8.The rate for a 1.20m wide carpet is Rs 40 per meter; find the cost of covering a hall 45m long and 32m wide with this carpet. Also, find the cost of carpeting the same hall if the carpet, 80cm wide, is at Rs 25 per meter.

Q9.A footpath of uniform width runs all around the outside of a rectangular field 30m long and 24m wide. If the path occupies an area of 360m^2 , find its width.

Q10.A wire when bent in the form of a square encloses an area of 484m^2 .Find the largest area enclosed by the same wire when bent to form an equilateral triangle and a rectangle of breadth 16m.

Q11.The radii of two circles are 25cm and 18 cm .Find the radius of the circle which has circumference equal to the sum of circumferences of these two circles.

Q12. From a square cardboard ABCD of side 28 cm four identical circles of largest possible size are cut .Find the area of the remaining cardboard.

Q13.A wheel has diameter 84 cm. Find how many complete revolutions must it make to cover 3.168km.

Q14.The cost of fencing a circular field at the rate of Rs 240 per meter is Rs 52,800.The field is to be ploughed at the rate of Rs 12.50 per m^2 .Find the cost of ploughing the field.

Q15.A square is inscribed in a circle of radius 7cm.Find the area of the square.

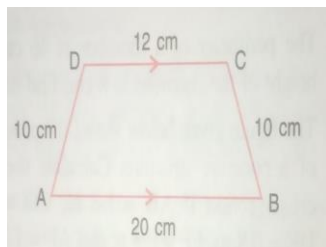
Q16.Find the area of a ring shaped region enclosed between two concentric circles of radii 20 cm and 15 cm.

Q17.The perimeter of a semicircular plate is 108cm, find its area.

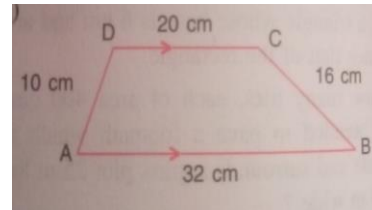
Q18.The diameters of two circles are 32 cm and 24cm.Find the radius of the circle having its area equal to sum of the areas of the two given circles.

Q19. Find the area of each trapezium:

(i)

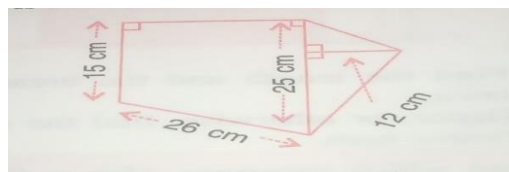


(ii)



Q20. Calculate the area of the figure given below:

which is not drawn to scale.



END