

Mathematics

0580

Paper-2

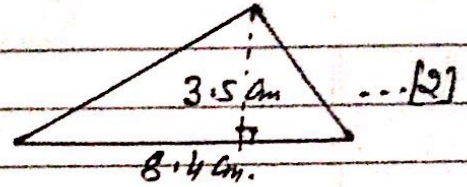
Mensuration

Exercise - (March 18, S-18, W-18)
(S-19 and M-19)

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1. Calculate the area of this triangle.

[S-19/22/Q7]

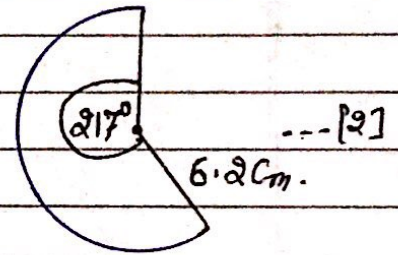


2. On a map of scale 1:25 000, the area of a lake is 33.6 square centimetres. Calculate the actual area of the lake, giving your answer in square kilometres. ---[2]

[S-19/22/Q10]

3. The diagram shows a sector of a circle with radius 6.2 cm and sector angle 217° . Calculate the area of this sector.

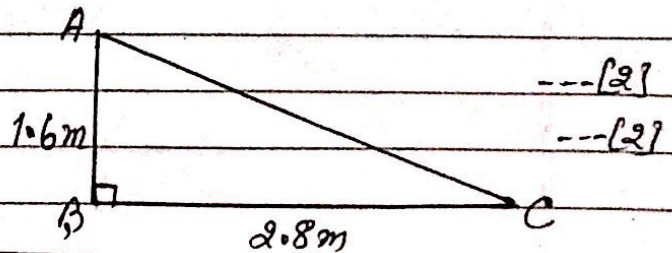
[S-19/23/Q12]



4. (a) Find the area of triangle ABC.

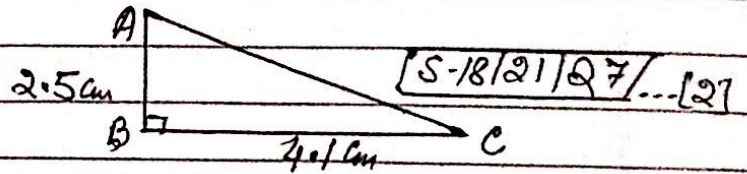
(b) Calculate AC.

[M-18/22/Q16]



5. Calculate the area of a circle with radius 5.1 cm. [S-18/21/Q6] ---[2]

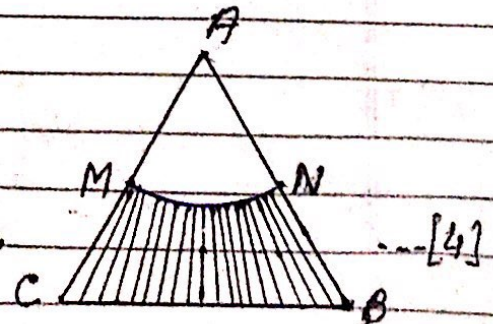
6. Calculate the length AC.



7. The diagram shows an equilateral triangle ABC with sides of length 10 cm. AMN is a sector of a circle, centre A. M is the mid point of AC.

Work out the area of the shaded region.

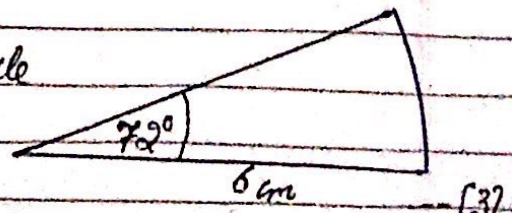
[W-18/22/Q21]



8. The diagram shows a sector of a circle with radius 6 cm and sector angle 72° .

The perimeter of the sector is $(p + q\pi)$ cm. Find the value of p and q.

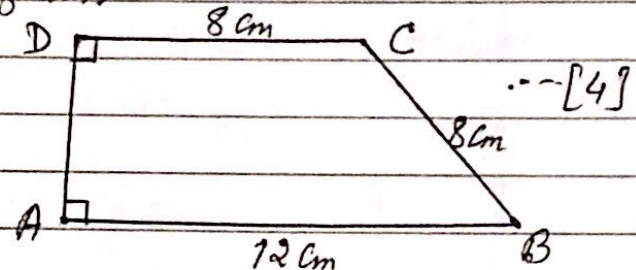
[W-18/23/Q19]



9. Chai says that 8cm^2 is same as 80mm^2 .
Explain why Chai is wrong.

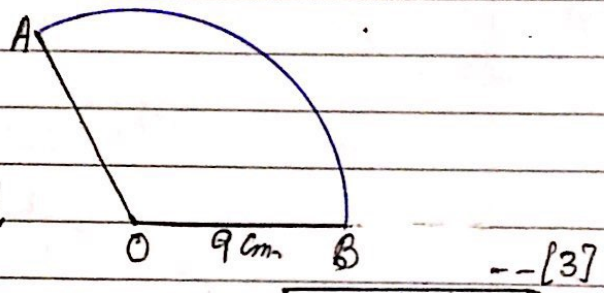
[SP-20/02/Q4] -- [1]

10. Calculate the area of this trapezium.



[SP-20/02/Q17]

11. AB is an arc of a circle,
Centre O, radius 9 cm.
The length of arc AB is 6π cm.
The area of sector AOB is $k\pi$ cm².
Find the value of k.



[SP-20/02/Q23]

Answers

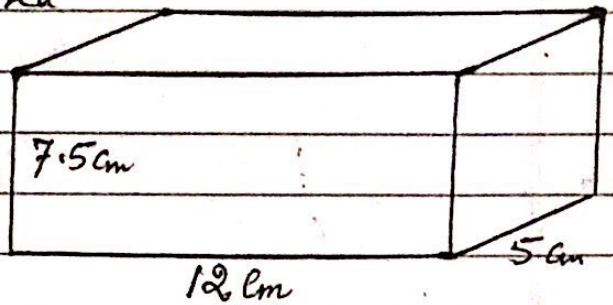
- 1. 14.7
- 2. 2.1
- 3. 72.8
- 4. (a) 2.24
(b) 3.22
- 5. 81.7
- 6. 4.8
- 7. 30.2
- 8. $p = 12$
 $q = \frac{12}{5}$

- 9. $100\text{mm}^2 = 1\text{cm}^2$,
- 10. 69.3
- 11. 27.



1. Calculate the total surface area of the cuboid. --- [3]

[M-19/22/Q70]



2. A cone with height 14.8 cm has volume 275 cm^3 . Calculate the radius of the cone. [M-19/22/Q12] --- [3]

3. A pipe is full of water. The cross-section of the pipe is a circle, radius 2.6 cm. Water flows through the pipe into a tank at a speed of 12 cm per second. Calculate the number of litres that flow into the tank in one hour. --- [3]

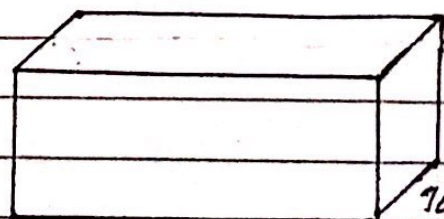
[M-19/22/Q18]

4. The volume of a cuboid is 180 cm^3 . The base is a square of side length 6 cm. Calculate the height of this cuboid. --- [2]

[S-19/21/Q5]

5. A model of a car has a scale 1:20. The volume of the actual car is 12 m^3 . Find the volume of the model. Give your answer in cubic centimetres. [S-19/21/Q19] --- [3]

6. The diagram shows a solid cuboid with base area 7 cm^2 . The volume of this cuboid is 21 cm^3 . Work out the total surface area. --- [3]



7 cm [S-18/22/Q14]

7. Find the volume of a cylinder of radius 5 cm and height 8 cm. Give the unit of your answer. [S-18/22/Q15] --- [3]

8. A water tank in the shape of a cuboid has length 1.5 metres and width 1 metre. The water in the tank is 60 centimetres deep. Calculate the number of litres of water in the tank. --- [3]

[W-18/21/Q10]

Answers

1. 375

2. 4.21

3. 917

4. 5

5. 1500

6. 62

7. 628 cm³

8. 900

