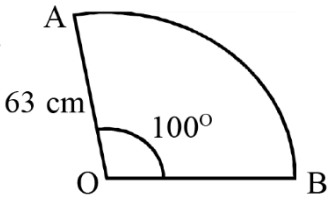
JAFFNA HINDU COLLEGE

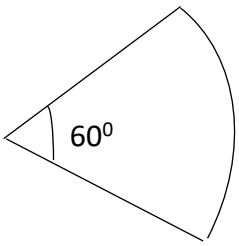
Risk Holiday Self - Education Worksheet - 2020

Grade - 10 | Mathematics

Name/Index No : …… Mr.R.S.Mayooran, NDT (Maths)

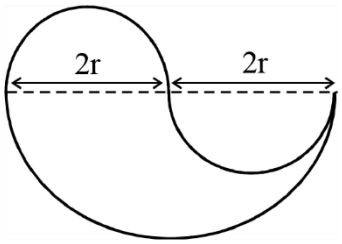
01. 

Find the are length AB

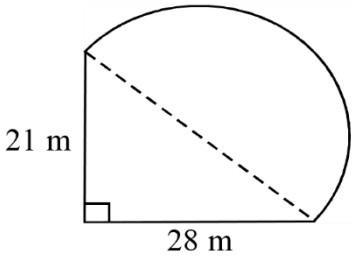
02. 

If the are length of this sector is 22cm find the radius

03. Find r ; if the perimeter if this figure id 18 π

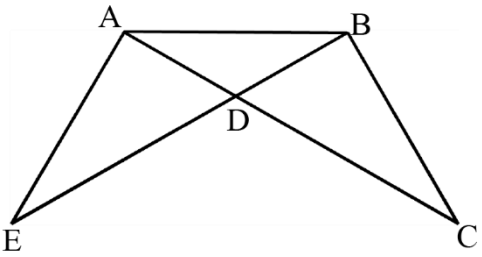


04. Find the Perimeter of this figure.



05. Find the first apprixiamation of $\sqrt{338}$
06. The length and breadth of a rectangular land are 25m and 22m. Find the side length of a square whose area is thrice the area of this rectangle.
07. Find $\sqrt{0.273}$ to two decimals.
08. Simplify :- $\left(4\frac{2}{3} - 3\frac{4}{5}\right) \div 2\frac{3}{5} \times \frac{3}{5}$
09. Kamal donated $\frac{5}{12}$ of his land to his daughter and $\frac{1}{3}$ to this his son. Find the fraction of land remaining.
10. Expand and simplify
    (i) $(2x + y)(x - 2y)$ (ii) $(3a - 4b)^2$
11. Find the values using your knowledge in expasion of the square of a binomial.
    (i) 104_2
    (ii) 97_2

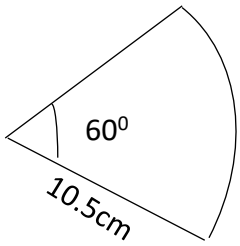
12. If a+b = 11 and ab=28, find a^2+y^2
13. If $x - \frac{1}{x} = 6$, find $x^2 + \frac{1}{x^2}$
14. If a+b = 27 and a-b=15 find th value of a.

15. 

In this figure AE = BD, and AC=BE show that

Δ ADE = ΔBCD

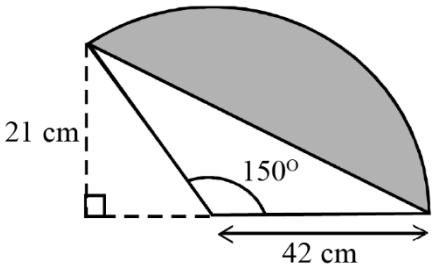
16. In triangle ABC, AB=AC, the bisector B$\hat{A}$C meets BC at D. show that ΔABD = ΔACD

17. 

Find the area of this sector.

18. If this area of a semicircle is $\frac{44}{63}m^2$, find this radius.

19. Find the area of shaded region.

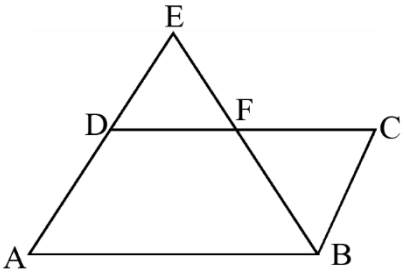


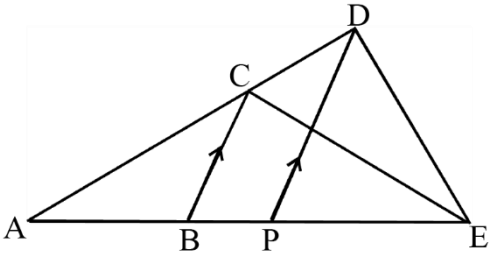
20. Fill the blanks.

(i) $(a + ...)^2 = a^2 + 16a + ...$
(ii) $(..... - 11)^2 = ... - 22x + ...$

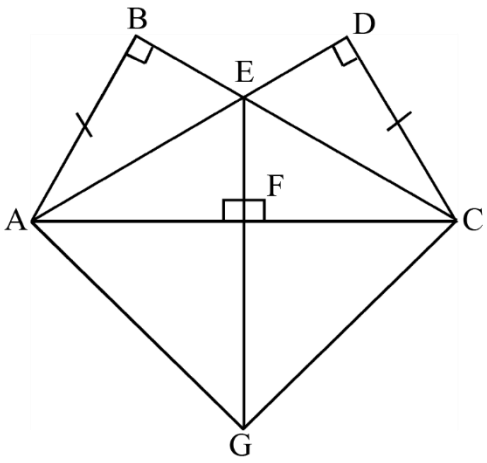
Part 11

01. ABCD is a parallelogram. D is the midpoint of AE prove that
    1. Δ DEF $\equiv$ Δ BCF
    2. Area of Δ BDE $\equiv$ ΔBCD



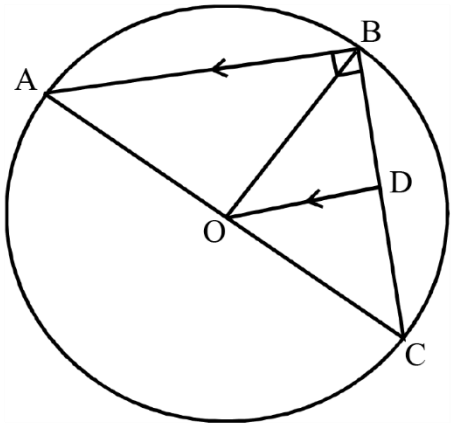
02. 

In this figure AB = BC, CE = ED prove that.
    a. Δ DPE $\equiv$ Δ EBC
    b. AB $\equiv$ PE

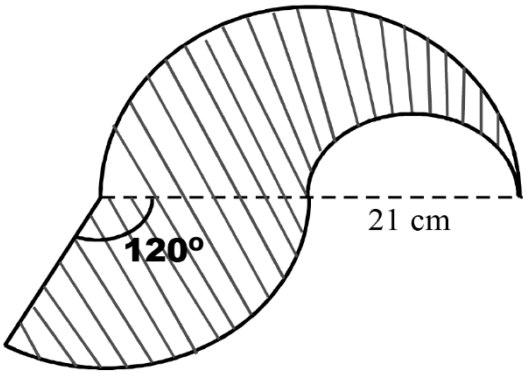
03. 

In this figure $A\hat{B}C = A\hat{D}C = 90^0$, AB = Dc and EF is perpendicular to AC. prove that

1. ΔABE $\underline{=}$ ΔCDE
2. ΔAEF $\underline{=}$ ΔCEF
3. AG $\underline{=}$ GC



04. In this figure AB = BC, $A\hat{B}C = 90^0$, BA is parallel to DO. prove the following.
    1. ΔOCD $\underline{=}$ ΔOBD
    2. ΔABO $\underline{=}$ ΔBCO
    3. ΔOCD $\underline{=} \frac{1}{4}$ ΔABC

05. 

The radius of Larger semi circle and the sector are equal.

a. Find the perimeter of shaded part.
b. Find the are of should region.

06. Rangan spent $\frac{1}{8}$ of this monthly salary for food and $\frac{5}{12}$ for children's education. thanhe spent $\frac{2}{11}$ of remaining for transport and there after he spent $\frac{2}{3}$ of the remaing for other expenses. Finaly he saved the balance Rs.6500.
    1. Fidnthe fraction of whole amount spent on food and education.
    2. Find the fraction of whole salary spent for transport.
    3. Find the fraction of whole salary spent for other expenses.
    4. Express the amount spent an other expenses. as a fraction od whole amount.
    5. Calculate his monthl Salary.

***