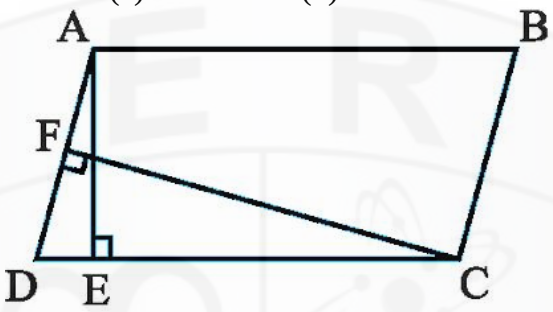
MCQ WORKSHEET-I

AREAS OF ||gms AND TRIANGLES

1. *Parallelograms on the same base and between the same parallels are _____ in area.*
(a) half (b) one third (c) one fourth (d) equal

2. If a triangle and a parallelogram are on the same base and between the same parallels, then prove that the area of the triangle is _____ of the area of the parallelogram.
(a) half (b) one third (c) one fourth (d) equal

3. In the below Fig., ABCD is a parallelogram, AE ⊥ DC and CF ⊥ AD. If AB = 16 cm, AE = 8 cm and CF = 10 cm, find AD.
(a) 10.8 (b) 11.8 (c) 12.8 (d) 13.8

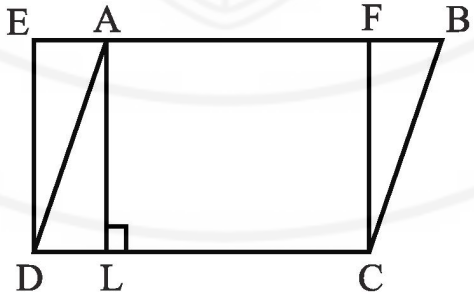


4. In the above Fig., ABCD is a parallelogram, AE ⊥ DC and CF ⊥ AD. If AD = 9 cm, CF = 4 cm and DC = 12 cm, find AE.
(a) 3 cm (b) 6 cm (c) 9 cm (d) 2 cm

5. In the above Fig., ABCD is a parallelogram, AE ⊥ DC and CF ⊥ AD. If AD = 5 cm, CF = 8 cm and AE = 4 cm, find AB.
(a) 10 cm (b) 20 cm (c) 9 cm (d) 12 cm

6. If E,F,G and H are respectively the mid-points of the sides of a parallelogram ABCD, then ar (EFGH) =
(a) ar(ABCD) (b) $\frac{1}{2}$ ar(ABCD) (c) $\frac{1}{3}$ ar(ABCD) (d) $\frac{1}{4}$ ar(ABCD)

7. In the below Fig., ABCD is a parallelogram and EFCD is a rectangle, then ar (EFGH) =
(a) ar(ABCD) (b) $\frac{1}{2}$ ar(ABCD) (c) $\frac{1}{3}$ ar(ABCD) (d) $\frac{1}{4}$ ar(ABCD)



8. *Two triangles on the same base (or equal bases) and between the same parallels are _____ in area.*
(a) half (b) one third (c) one fourth (d) equal

9. A median of a triangle divides it into two triangles of _____ areas.
(a) half (b) one third (c) one fourth (d) equal

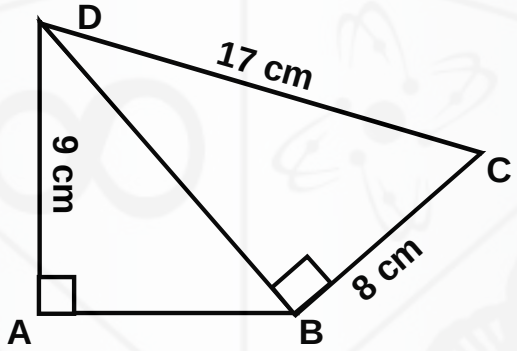
10. Area of a triangle is _____ the product of its base and the corresponding altitude.
(a) half (b) one third (c) one fourth (d) equal

11. Area of a parallelogram is _____ the product of its base and the corresponding altitude.
(a) half (b) one third (c) one fourth (d) equal

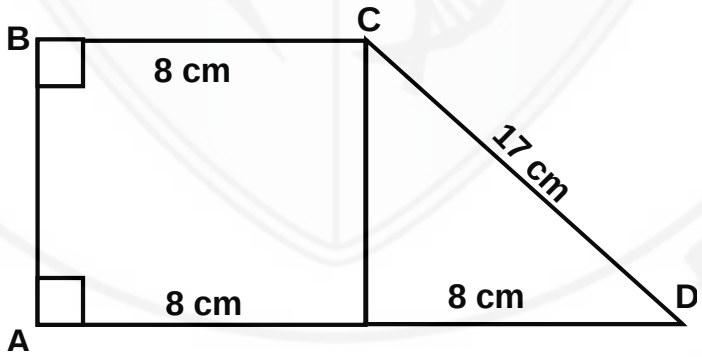
12. The area of a rhombus, the lengths of whose diagonals are 16 cm and 24 cm respectively, is
(a) 192 cm^2 (b) 120 cm^2 (c) 384 cm^2 (d) none of these

13. The area of a trapezium whose parallel sides are 9 cm and 6 cm and the distance between these sides is 8 cm is
(a) 92 cm^2 (b) 120 cm^2 (c) 60 cm^2 (d) none of these

14. The area of a below quadrilateral is
(a) 112 cm^2 (b) 120 cm^2 (c) 114 cm^2 (d) none of these



15. The area of a below quadrilateral is
(a) 150 cm^2 (b) 180 cm^2 (c) 100 cm^2 (d) none of these



MCQ WORKSHEET-II
AREAS OF ||gms AND TRIANGLES

1. D, E and F are respectively the mid-points of the sides BC, CA and AB of a ΔABC, then ar (DEF)

(a) ar(ABC) (b) $\frac{1}{2}$ ar(ABC) (c) $\frac{1}{3}$ ar(ABC) (d) $\frac{1}{4}$ ar(ABC)

2. D, E and F are respectively the mid-points of the sides BC, CA and AB of a ΔABC, then ar (BDEF)

(a) ar(ABC) (b) $\frac{1}{2}$ ar(ABC) (c) $\frac{1}{3}$ ar(ABC) (d) $\frac{1}{4}$ ar(ABC)

3. In a triangle ABC, E is the mid-point of median AD, then ar (BED) =

(a) ar(ABC) (b) $\frac{1}{2}$ ar(ABC) (c) $\frac{1}{3}$ ar(ABC) (d) $\frac{1}{4}$ ar(ABC)

4. In ΔABC, E is any point on median AD then ar (ABE) =

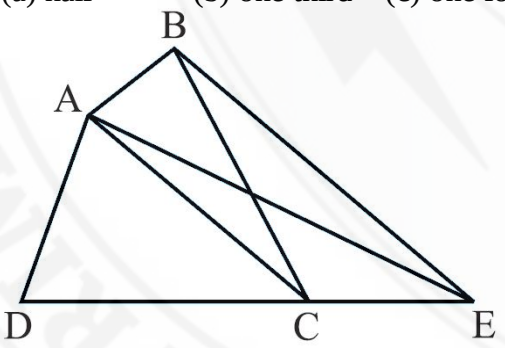
(a) ar(ACE) (b) $\frac{1}{2}$ ar(ACE) (c) $\frac{1}{3}$ ar(ACE) (d) $\frac{1}{4}$ ar(ACE)

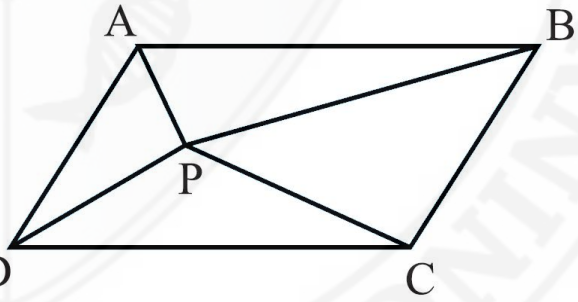
5. ABC and ABD are two triangles on the same base AB. If line- segment CD is bisected by AB at O then ar(ABC) =

(a) ar(ABD) (b) $\frac{1}{2}$ ar(ABD) (c) $\frac{1}{3}$ ar(ABD) (d) $\frac{1}{4}$ ar(ABD)

6. In Fig. ABCD is a quadrilateral and BE || AC and also BE meets DC produced at E then the area of ΔADE is _____ to the area of the quadrilateral ABCD.

(a) half (b) one third (c) one fourth (d) equal





7. In the above sided Fig, P is a point in the interior of a parallelogram ABCD then ar (APB) + ar (PCD) =

(a) ar(ABCD) (b) $\frac{1}{2}$ ar(ABCD) (c) $\frac{1}{3}$ ar(ABCD) (d) $\frac{1}{4}$ ar(ABCD)

8. In Fig, PQRS and ABRS are parallelograms and X is any point on side BR then ar (AX S) =

(a) ar(PQRS) (b) $\frac{1}{2}$ ar(PQRS) (c) $\frac{1}{3}$ ar(PQRS) (d) $\frac{1}{4}$ ar(PQRS)

9. In Fig, PQRS and ABRS are parallelograms and X is any point on side BR then ar (ABRS) =

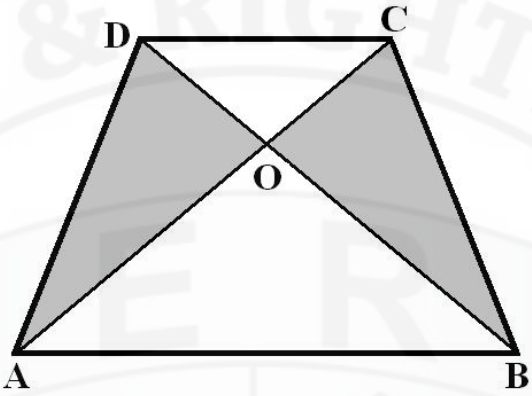
(a) ar(PQRS) (b) $\frac{1}{2}$ ar(PQRS) (c) $\frac{1}{3}$ ar(PQRS) (d) $\frac{1}{4}$ ar(PQRS)

10. P and Q are any two points lying on the sides DC and AD respectively of a parallelogram ABCD then ar (APB) =

(a) ar(BQC) (b) $\frac{1}{2}$ ar(BQC) (c) $\frac{1}{3}$ ar(BQC) (d) $\frac{1}{4}$ ar(BQC)

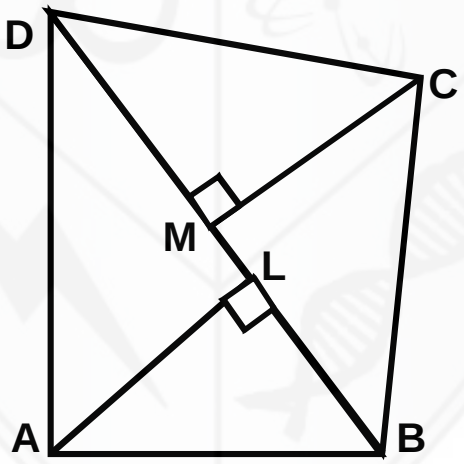
11. In the below figure, ABCD is trapezium in which AB || DC and its diagonals AC and BD intersect at O then ar(AOD) =

(a) ar(BOC) (b) $\frac{1}{2}$ ar(BOC) (c) $\frac{1}{3}$ ar(BOC) (d) $\frac{1}{4}$ ar(BOC)



12. In the adjoining figure, ABCD is a quadrilateral in which diagonal BC = 14 cm. If AL ⊥ BD and CM ⊥ BD such that AL = 8cm and CM = 6 cm, then the area of quadrilateral is

(a) 90 cm^2 (b) 95 cm^2 (c) 98 cm^2 (d) none of these



MCQ WORKSHEET-III

AREAS OF ||gms AND TRIANGLES

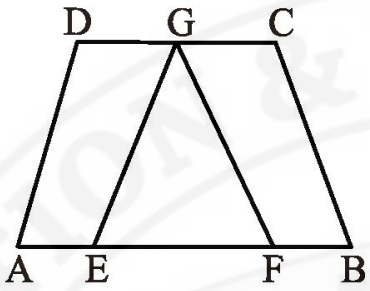
MATHEMATICS

CLASS- 9TH

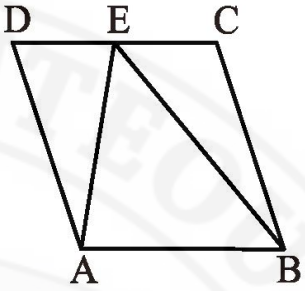
1. Given figure A and figure B such that area(A) = 20 sq. units and area(B) = 20 sq. units. The
(a) figure A and B are congruent (b) figure A and B are all not congruent.
(c) figure A and B may or may not be congruent (d) none of these.

2. Out of the given figures, mark which are not on the same base but between same parallels

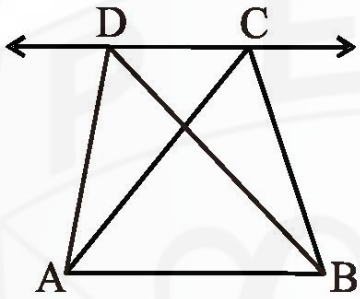
(a)



(b)

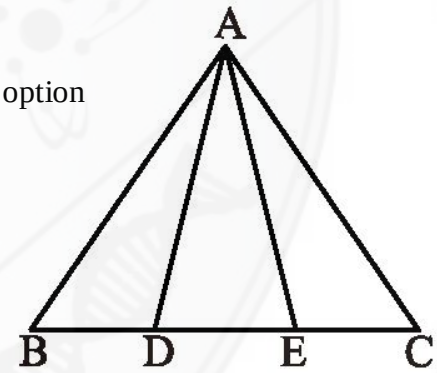


(c)



(d) none of these

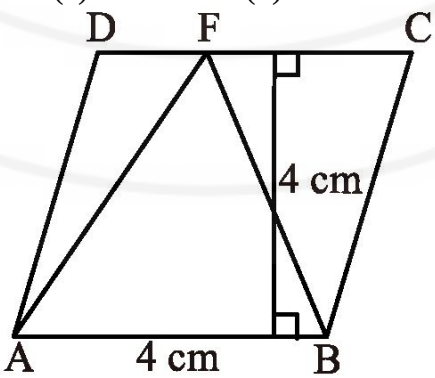
3. In the given figure, BD = DE = EC. Mark the correct option



(a) ar(ΔABD) = ar(ΔAEC)
(b) ar(ΔDBA) = ar(ΔADC)
(c) ar(ΔADE) = $\frac{1}{3}$ ar(ΔABC)
(d) ar(ΔABE) = $\frac{2}{3}$ ar(ΔABC)

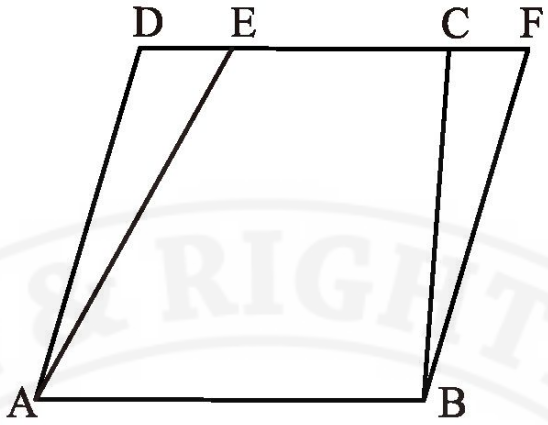
4. ABCDE is a pentagon. A line through B line parallel to AC meet DC produced at F.
(a) ar(ΔACB) = ar(ΔAEC)
(b) ar(ΔABF) = ar(ΔCABF)
(c) ar(ΔACF) = ar(ΔCBF)
(d) ar(ΔABF) = ar(ΔABC)

5. In the below figure, ABCD is a parallelogram, then ar(ΔAFB) is
(a) 16 cm^2 (b) 8 cm^2 (c) 4 cm^2 (d) 2 cm^2



6. In the given figure, ABCD and ABFE are parallelograms and ar(quad. EABC) = 17 cm^2, ar($||^{gm}$ ABCD) = 25 cm^2 then ar(ΔBCF) is

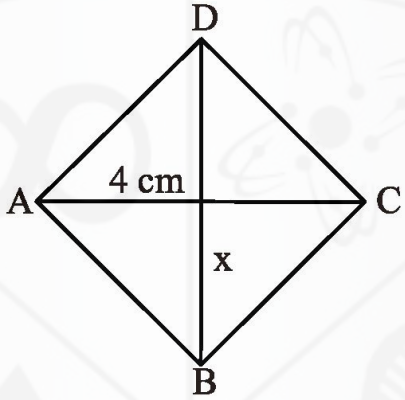
(a) 4 cm^2 (b) 8 cm^2 (c) 4.8 cm^2 (d) 6 cm^2



7. Given ar(ΔABC) = 32cm^2, AD is median of ΔABC, and BE is median of ΔABD. IF BO is median of ΔABE, the ar(ΔBOE) is

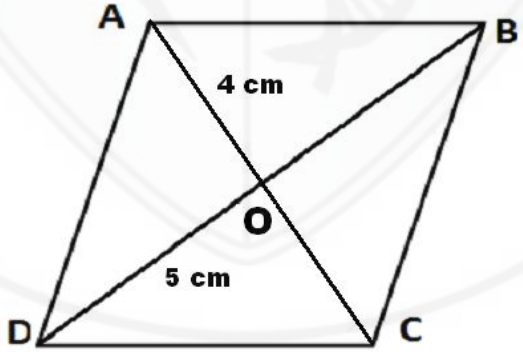
(a) 16 cm^2 (b) 4 cm^2 (c) 2 cm^2 (d) 1 cm^2

8. In the given figure, find x, if ABCD is a rhombus and AC = 4cm, ar(ABCD) = 20cm^2.



(a) 4 cm (b) 5 cm (c) 10 cm (d) 2.5 cm

9. In the given figure, find the area of rhombus ABCD if AO = 4 cm and OD = 5 cm.



A. 40 cm^2 B. 80 cm^2 C. 20 cm^2 D. 10 cm^2

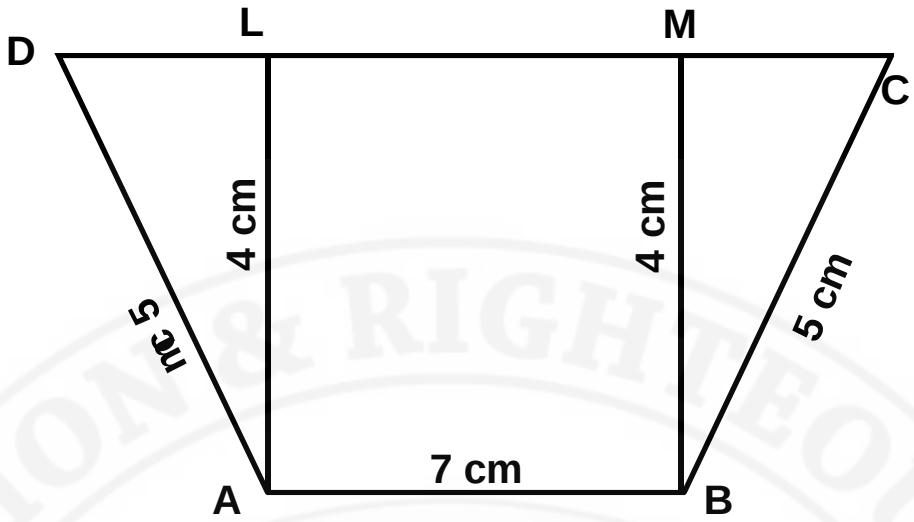
10. The area of rhombus is 120 cm^2 and one of its diagonals is 12 cm then the other diagonal is

A. 5 cm B. 10 cm C. 20 cm D. 12 cm

11. Given in triangle ABC, BE is the median of ΔABC and ar(ΔABE) = 20 cm^2, then ar(ΔABC) =

A. 40 cm^2 B. 80 cm^2 C. 20 cm^2 D. 10 cm^2

12. In the adjoining figure, ABCD is a trapezium in which AB || DC; AB = 7 cm; AD = BC = 5 cm and the distance between the parallel lines is 4 cm, then length DC =



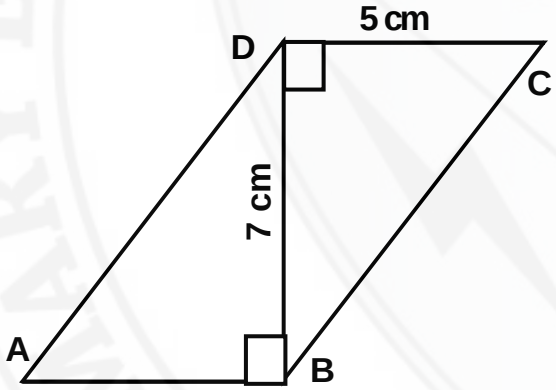
A. 15 cm B. 13 cm C. 11 cm D. 12 cm

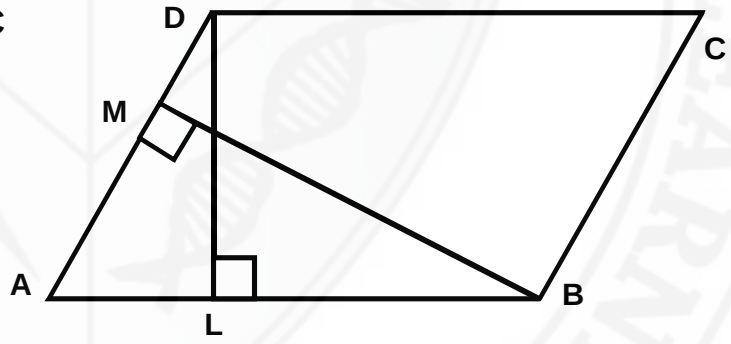
13. In the above figure, ABCD is a trapezium in which AB || DC; AB = 7 cm; AD = BC = 5 cm and the distance between the parallel lines is 4 cm, then the area of trap.ABCD =

A. 40 cm^2 B. 80 cm^2 C. 20 cm^2 D. 10 cm^2

14. In the below figure, ABCD is a parallelogram; DC = 5 cm; BD = 7 cm, then the area of parallelogram ABCD is

A. 45 cm^2 B. 35 cm^2 C. 25 cm^2 D. 10 cm^2





15. In the above figure, ABCD is a parallelogram; AB = 10 cm; BM = 8 cm and DL = 6 cm, then AD =

A. 15 cm B. 13 cm C. 11 cm D. none of these