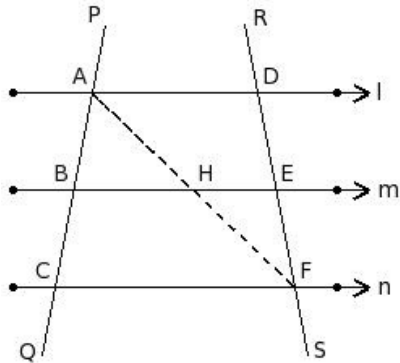




In the given figure, three lines  $l$ ,  $m$  and  $n$  are such that  $l \parallel m \parallel n$ .

1. Two transversals  $PQ$  and  $RS$  intersect them at the points  $A, B, C$  and  $D, E, F$  respectively.

$\triangle FEH \sim$

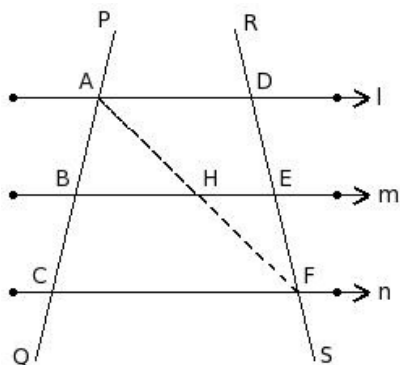


- (i)  $\triangle DCF$  (ii)  $\triangle FDA$  (iii)  $\triangle DAE$  (iv)  $\triangle ABH$  (v)  $\triangle ACF$

In the given figure, three lines  $l$ ,  $m$  and  $n$  are such that  $l \parallel m \parallel n$ .

2. Two transversals  $PQ$  and  $RS$  intersect them at the points  $A, B, C$  and  $D, E, F$  respectively.

$\angle FAC =$

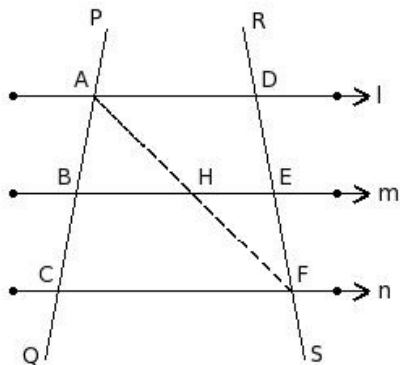


- (i)  $\angle HFE$  (ii)  $\angle AFD$  (iii)  $\angle FDA$  (iv)  $\angle FEH$  (v)  $\angle HAB$

In the given figure, three lines  $l$ ,  $m$  and  $n$  are such that  $l \parallel m \parallel n$ .

3. Two transversals  $PQ$  and  $RS$  intersect them at the points  $A, B, C$  and  $D, E, F$  respectively.

$\angle ABH =$

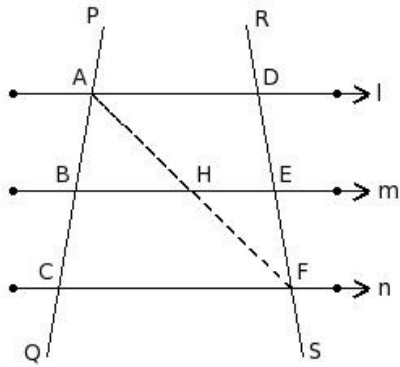


- (i)  $\angle ACF$  (ii)  $\angle FDA$  (iii)  $\angle FEH$  (iv)  $\angle EHF$  (v)  $\angle DAF$

In the given figure, three lines  $l$ ,  $m$  and  $n$  are such that  $l \parallel m \parallel n$ .

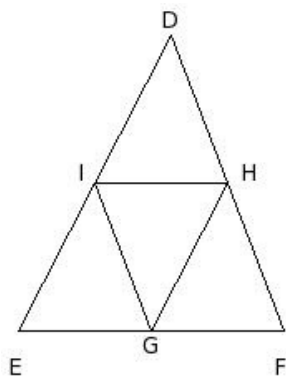
4. Two transversals  $PQ$  and  $RS$  intersect them at the points  $A, B, C$  and  $D, E, F$  respectively.

$\angle DAF =$



- (i)  $\angle EHF$  (ii)  $\angle AFD$  (iii)  $\angle BHA$  (iv)  $\angle CFA$  (v)  $\angle HFE$

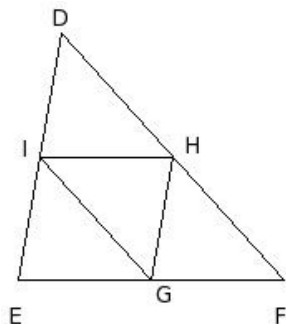
5. In the given figure, the area of the  $\triangle DEF$  is  $x$  sq.cm.  $G, H, I$  are the mid-points of the sides  $EF, FD$  and  $DE$  respectively. The area of the  $\triangle GHI$  is



- (i)  $\frac{1}{4}$  of area of  $\triangle DEF$  (ii)  $\frac{1}{2}$  of area of  $\triangle DEF$  (iii)  $\frac{2}{3}$  of area of  $\triangle DEF$  (iv)  $\frac{3}{4}$  of area of  $\triangle DEF$   
(v)  $\frac{1}{3}$  of area of  $\triangle DEF$

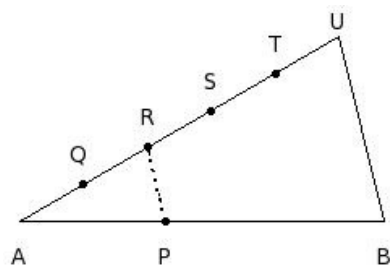
6. In the given figure, points  $G, H$  and  $I$  are the mid-points of sides  $EF, FD$  and  $DE$  of  $\triangle DEF$ . Which of the following are true?

- a) Area of trapezium  $EFHI$  is  $\frac{1}{4}$  the area of  $\triangle DEF$   
b) Area of  $\triangle DEF = \frac{1}{3}$  area of  $\triangle GHI$   
c) Area of trapezium  $EFHI$  is thrice the area of  $\triangle DIH$   
d) All four small triangles have equal areas  
e) Area of  $\triangle DEF = 4$  times area of  $\triangle GHI$



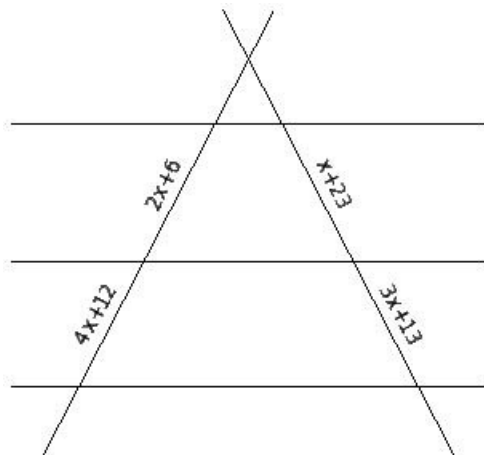
- (i)  $\{a, c, d\}$  (ii)  $\{a, c\}$  (iii)  $\{a, b, e\}$  (iv)  $\{c, d, e\}$  (v)  $\{b, d\}$

7. In the given figure, if A, Q, R, S, T, U are equidistant and  $RP \parallel UB$  and  $AB = 23$  cm and  $AP = 9$  cm. Find PB



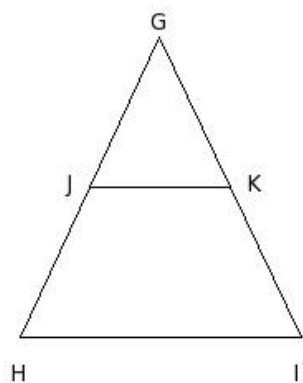
- (i) 13.00 cm (ii) 15.00 cm (iii) 14.00 cm (iv) 12.00 cm (v) 16.00 cm

8. From the given figure and values, find x



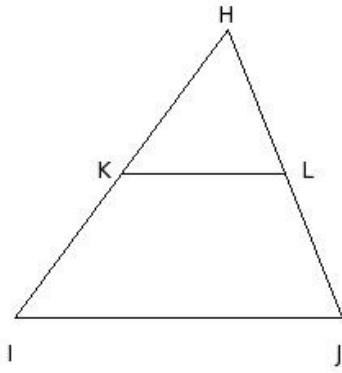
- (i) (35,-1) (ii) (-2,34) (iii) (0,33) (iv) (-3,33) (v) (-3,32)

9. In the given figure  $\triangle GHI$ ,  
J is the mid-point of  $\overline{GH}$  and  $\overline{JK} \parallel \overline{HI}$ , then  $GK =$



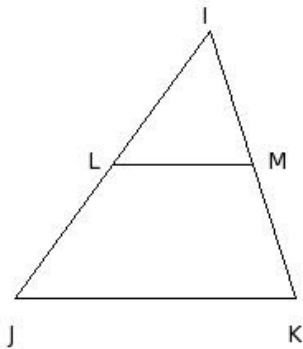
- (i)  $\frac{HI}{2}$  (ii) HI (iii) GJ (iv)  $\frac{GH}{2}$  (v)  $\frac{IG}{2}$

10. In the given figure  $\triangle HIJ$ ,  
K is the mid-point of  $\overline{HI}$  and  $\overline{KL} \parallel \overline{IJ}$ , then  $HK =$



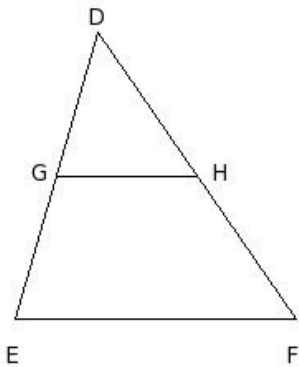
- (i)  $\frac{IJ}{2}$  (ii)  $IJ$  (iii)  $\frac{JH}{2}$  (iv)  $\frac{HI}{2}$  (v)  $HL$

11. In the given figure  $\triangle IJK$ ,  
L is the mid-point of  $\overline{IJ}$  and  $\overline{LM} \parallel \overline{JK}$ , then  $IL =$



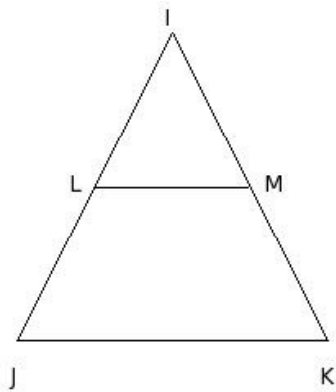
- (i)  $IM$  (ii)  $KI$  (iii)  $IJ$  (iv)  $IJ$  (v)  $MK$

12. In the given figure  $\triangle DEF$ ,  
G is the mid-point of  $\overline{DE}$  and  $\overline{GH} \parallel \overline{EF}$ , then  $GE =$



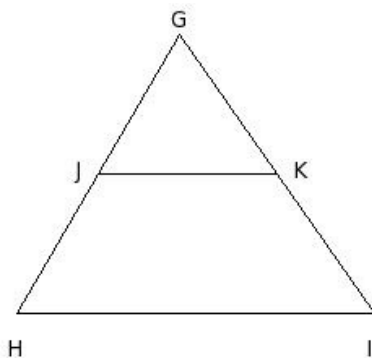
- (i)  $DE$  (ii)  $DG$  (iii)  $DH$  (iv)  $FD$  (v)  $HF$

13. In the given figure  $\triangle IJK$ ,  
 L is the mid-point of  $\overline{IJ}$  and  $\overline{LM} \parallel \overline{JK}$ , then  $IM =$



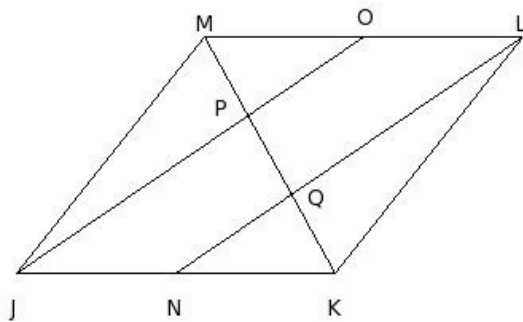
- (i) IJ (ii) MK (iii) KI (iv) LJ (v) IL

14. In the given figure  $\triangle GHI$ ,  
 J is the mid-point of  $\overline{GH}$  and  $\overline{JK} \parallel \overline{HI}$ , then  $KI =$



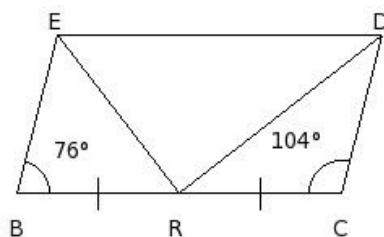
- (i) GH (ii) IG (iii) GK (iv) JH (v) GJ

15. In the given figure, JKLM is a parallelogram  
 such that N and O are mid-points of sides JK & LM.  
 JO meets KM at P and LN meets KM at Q. Given  $KM = 17$  cm, find PM



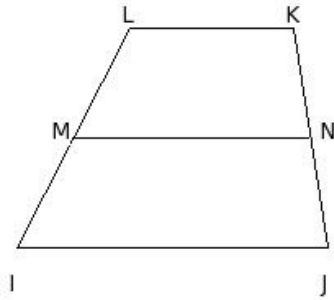
- (i) 6.67 cm (ii) 5.67 cm (iii) 4.67 cm (iv) 3.67 cm (v) 7.67 cm

16. In the given figure, BCDE is a parallelogram such that R is the mid-point of BC and  $BC = 2EB$ . Find  $\angle ERD$



- (i)  $88^\circ$  (ii)  $90^\circ$  (iii)  $92^\circ$  (iv)  $91^\circ$  (v)  $89^\circ$

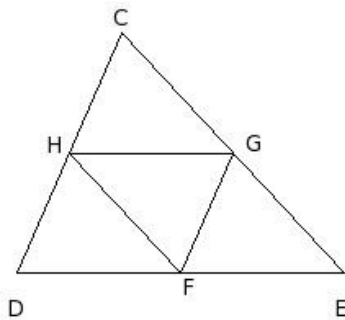
17. In the given figure, IJKL is a trapezium. M and N are mid-points of IL and JK. Given  $IJ = 19$  cm and  $MN = 14.5$  cm, find KL



- (i) 11.0 cm (ii) 9.0 cm (iii) 10.0 cm (iv) 8.0 cm (v) 12.0 cm

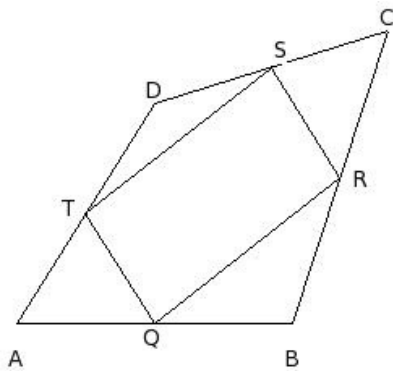
In the given figure,  $\triangle CDE$  is a triangle.

18. F, G & H are mid-points of DE, EC & CD respectively. Given  $FG = 8$  cm,  $GH = 10$  cm &  $HF = 10$  cm, find the sides of the triangle.



- (i) 17 cm, 20 cm & 20 cm (ii) 16 cm, 19 cm & 20 cm (iii) 16 cm, 20 cm & 20 cm (iv) 16 cm, 20 cm & 22 cm  
(v) 13 cm, 20 cm & 20 cm

19. ABCD is a quadrilateral. Q, R, S and T are mid-points of AB, BC, CD and DA respectively. If  $AC = 29$  cm and  $BD = 16$  cm, find the measure of the sides of QRST.



- (i) 14.5 cm, 5 cm, 14.5 cm, 5 cm (ii) 15 cm, 8 cm, 15 cm, 8 cm (iii) 14.5 cm, 8 cm, 14.5 cm, 8 cm  
(iv) 17 cm, 8 cm, 17 cm, 8 cm (v) 14.5 cm, 7 cm, 14.5 cm, 7 cm

## Assignment Key

1) (ii)	2) (v)	3) (i)	4) (i)	5) (i)	6) (iv)
7) (iii)	8) (iv)	9) (v)	10) (iv)	11) (iv)	12) (ii)
13) (ii)	14) (iii)	15) (ii)	16) (ii)	17) (iii)	18) (iii)
19) (iii)					