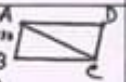
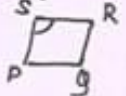


Class 8 (ICSE) Types of Quadrilaterals/ Shapes.

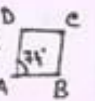
1. In a parallelogram ABCD,  $\angle A$  is 3 times  $\angle B$ . Find the angles of the parallelogram. If  $AB = 5x - 7$  and  $CD = 3x + 1$ ; find length of CD.



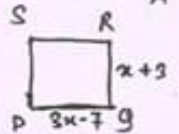
2. In  $\square PQRS$   $\angle Q = (4x - 5)$  and  $\angle S = (3x + 10)$ . Calculate  $\angle Q$  and  $\angle R$



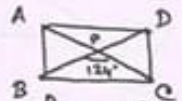
3. In rhombus ABCD, (i) if  $\angle A = 74^\circ$ ; find  $\angle B, \angle C$  (ii)  $AD = 7.5 \text{ cm}$ ; find  $BC$  and  $CD$



4. In Square PQRS (i) if  $PQ = 3x - 7$  and  $QR = x + 3$ ; find  $PS$ .  
(ii) if  $PR = 5x$  and  $QR = 9x - 8$ . find  $QS$



5. ABCD is a rectangle if  $\angle BPC = 124^\circ$ . Calculate (i)  $\angle BAP$  (ii)  $\angle ADP$



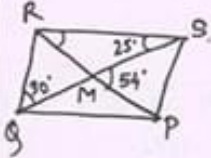
6. ABCD is a rhombus if  $\angle BAC = 38^\circ$  find  $\angle ACB, \angle DAC, \angle ADE$ .



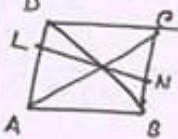
7. ABCD is a rhombus if  $\angle BCA = 95^\circ$  find  $\angle ADE$



8. PQRS is a parallelogram  $\angle PMS = 54^\circ$   
 $\angle QSR = 25^\circ$   
 $\angle SQR = 30^\circ$   
 $\angle RPS = ?$   
 $\angle PRS = ?$   
 $\angle PSR = ?$

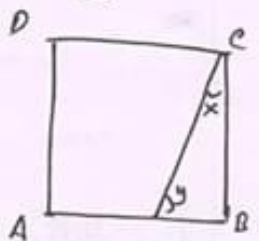
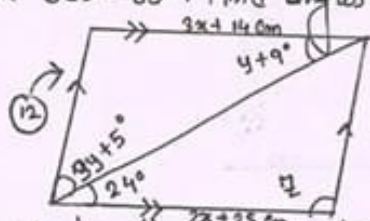
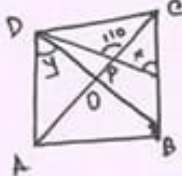


9. In  $\square ABCD$  in which diagonal AC and BD intersect at M. Prove M is the mid-point of LN



10. In an Isosceles trapezium, show that opposite angles are supplementary

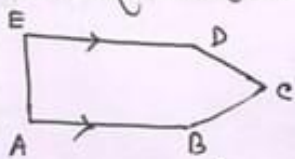
11. In rhombus ABCD in which  $\angle BED = 80^\circ$ . Find angles X and y



12. Find the value of  $x, y, z$  in the above diagram.

13. The following figure is a rectangle in which  $x:y = 3:7$ . find  $x, y$ .

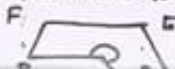
14. The figure given below, shows a pentagon ABCDE with sides AB and ED || to each other and  $\angle B : \angle C : \angle D = 5 : 6 : 7$ .



- (i) Sum of interior angles of pentagon.
- (ii) Write the value of  $\angle A + \angle E$
- (iii) Find angles B, C, D.

15. Two angles of a polygon are right angles and remaining each are  $120^\circ$  each. Find the number of sides in it.

16. In hexagon ABCDEF, side AB is parallel to side FE and  $\angle B : \angle C : \angle E : \angle F = 6 : 4 : 2 : 3$ . Find  $\angle B$  and  $\angle D$ .





- (i) A man buys a certain number of articles at 15 for Rs 112.50 and sells them at 12 for Rs 108. Find (i) his gain as % (20%)  
(ii) no. of articles sold to make profit of Rs 75. (50)
- (ii) A man sold his bicycle for Rs 405 losing one tenth of its CP. find CP and loss % (450, 10%)
- (iii) A man sells a radio-set for Rs 605 and gains 10%. At what price should he sell another radio of the same kind, in order to gain 16%. (638)
- (iv) Mr. Simha sold two tape recorders of Rs 990 each; gaining 10% one and losing 10%. Find his total loss or gain as % on whole transaction. (1%)
- (v) A tape recorder is sold for Rs 2760 at a gain of 15% and CD player is sold for Rs 3240 at a loss of 10%. Find  
(i) CP of the tape recorder (2400) (iv) total S.P. of both (6000)  
(ii) CP of the CD player (3600) (v) gain or loss % (NO)  
(iii) total C.P. of both (6000)
- (vi) Rajesh sold his scooter to Rahim at 8% loss and Rahim in turn sold the same to Prem at 5% gain. If Prem paid Rs 14,490. find.  
(i) S.P. and C.P. for Rahim (13800, 14490)  
(ii) " " " " Rajesh (15000, 13200)
- (vii) A man sells 12 articles for Rs 80 gaining  $33\frac{1}{3}\%$ . Find the number of articles bought by the man for Rs 90. (18)
- (viii) A shopkeeper bought rice worth Rs 4500; He sold  $\frac{1}{3}$ rd of it at 10% profit. If he desires a profit of 12% on the whole.  
(i) the selling price of rest of the rice (3390)  
(ii) the % profit on the rest of the rice (13%)
- (ix) Raju sells a watch at 5% profit. Had he sold it for Rs 24 more, he would have gained 11%. Find the cost price (400)
- (x) By selling an article at 20% discount a shopkeeper gains 25%. If S.P. is 1440. find (i) marked price (1800) (ii) C.P. (1152)
- (xi) The cost price of an article is 25% below the marked price. If the article is available at 15% discount and its C.P. is 2400.  
(i) find M.P (3200) (ii) find S.P (2720) (iii) find % (13 $\frac{1}{3}$ %)