



INDIAN SCHOOL AL WADI AL KABIR

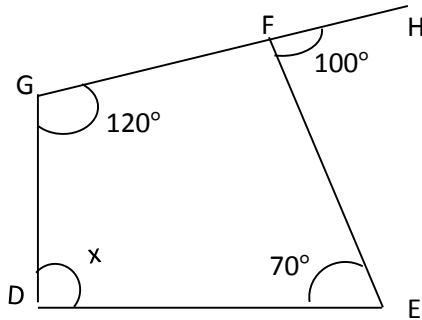
Dept. of Mathematics

Class : VIII

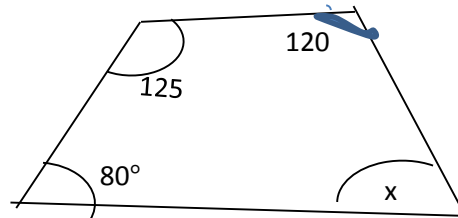
HOLIDAY HOMEWORK

Date: 08th June, 2016

Q.1) Find the value of x:

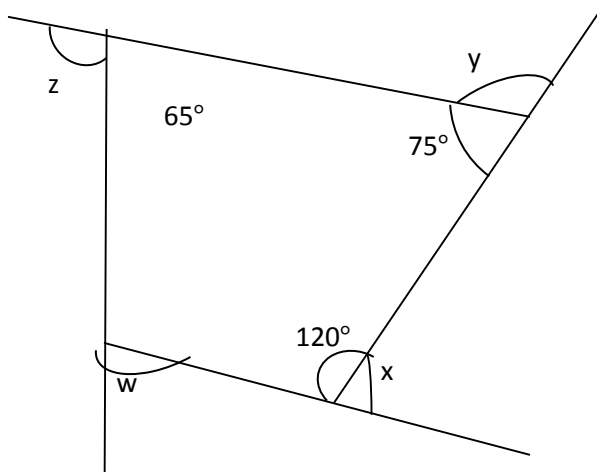


(i) Ans: $x = 90^\circ$



(ii) Ans : $x = 35^\circ$

Q-2.) Find w, x, y, z using property



Ans: $x = 60^\circ$, $y = 105^\circ$, $z = 115^\circ$, $w = 80^\circ$

- PQRS is a parallelogram. One pair of its adjacent angles are in the ratio 3:1. Find all 4 angles of it. 135°, 45°,
135°, 45°
- If three angles of a quadrilateral are 85°, 65° and 50°. Find the reflex angle of the fourth angle. [HOTS] 200°
- If one angle of a parallelogram is 90°, what are the measures of the other three angles? What other name will you give to this parallelogram? 90° each,
Rectangle

6. ABCD is a rhombus, whose diagonal $AC = (5x + 4)$ cm, is double the diagonal $BD = (4x - 7)$ cm. Find the value of x and also the length of the diagonals AC and BD. X = 6cm,
AC=34 cm
BD= 17cm
7. PQRS is a trapezium with $PQ \parallel RS$. Use property to find all the four angles, if $\angle P = (3x - 20)^\circ$, $\angle Q = y^\circ$, $\angle R = 65^\circ$ and $\angle S = (2x - 10)^\circ$ Y = $115^\circ = \angle Q$
 $\angle P = 106^\circ$
 $\angle S = 74^\circ$
8. Two adjacent angles of a parallelogram are in the ratio 2 : 7. Find the measure of each angle. If adjacent sides are in the ratio 2 : 7, with perimeter 90 cm, find the measure of each side. (Ans: AB= CD=35cm, BC=AD=10 cm) $\angle A = \angle C$
 $= 40^\circ$
 $\angle B = \angle D$
 $= 140^\circ$
9. If possible, how many sides does a regular polygon have with each of its exterior angle as 150° ? Give reason for your answer. No
10. Name a regular polygon whose each exterior angle measures 36° .
11. Draw a labeled diagram of each of the special quadrilaterals you have learnt and write down at least three properties of each of them.
12. Draw any four polygons, in a tabular form and represent their sides, angle sums and number of diagonals. [Hint: use the formula Angle sum = $(n-2) \times 180^\circ$, number of diagonals = $\frac{n(n-3)}{2}$]
13. Two fifth of a number increased by 2 is 14. Find the number. X =30
14. Solve: $\frac{2x+1}{3x+5} = \frac{11}{20}$ X= 5
15. Solve: $\frac{x}{2} + \frac{2x}{3} + \frac{3x}{4} = \frac{5}{6}$ X= $\frac{10}{23}$
16. A purse contains some 25p coins and some 50p coins. The total amount in the purse is Rs 25. If the no. of 50p coins is double the no. of 25p coins, how many of each coins is there in the purse? 25p coin=100,
50p coin=200
17. The ages of Rishi and Ramya are in the ratio 5:7. Two years ago the sum of their ages was 56 years. What are their present ages? Rishi=25years
Remya=35 yrs
18. One sixth of the students of a class joined the sports club. Three fifth of these students opted to play table tennis. Ans: 60,6
If six students play table tennis, how many students are there in class and how many joined the sports club?

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| 19. | Three consecutive integers add up to 93 , find the numbers. | 30,31,32 |
| 20. | Divide 750 into two parts so that 10 % of one part equals 20 % of the other part. | 500,250 |
| 21. | The sum of the digits of a two digit number is 7 . The number formed by reversing the digits is 45 more than the original number. Find the original number. | 16 |
| 22. | Kamal has currency notes in the denominations of Rs. 20 , Rs. 50 and Rs. 100. The number of Rs. 20 notes is three times the number of Rs. 50 notes and the total number of notes is 160. If the total amount of the notes is Rs. 7300 , how many notes of each denomination does Kamal have ? | Rs.50(30)
Rs.20(90)
Rs.100(40) |
| 23. | Solve: $0.96x - 0.79 = 0.21x + 0.46$ | $x = 1\frac{2}{3}$ |
| 24. | $\frac{1}{4} (3x - 2) - \frac{1}{3} (2x + 3) = \frac{2}{3} - x$ | x= 2 |
| 25. | The ages of Ram and Sam are in the ratio 5 : 7. Three years from now , the ratio of their ages will be 3 : 4. Find their present ages. | 15years,
21years |

SET 2

SECTION- A

Answers

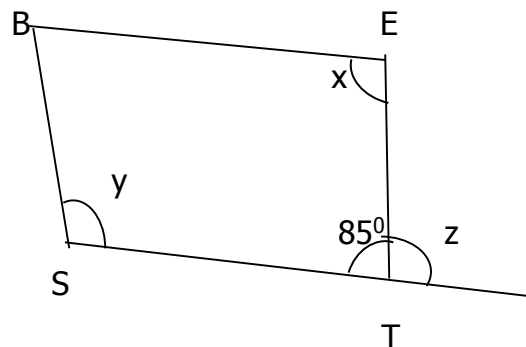
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| 1. | Find the value of 'x 'from the equation $2x - \frac{1}{3} = \frac{1}{5} - x$ | $x = \frac{8}{15}$ |
| 2. | Find the number of sides of a regular polygon with each exterior angle 24° . | 15 |
| 3. | Solve $11 - 3x = 4 (2x - 1)$ | $x = \frac{15}{11}$ |
| 4. | Solve : $8y - 7 = 25$ | $y = 4$ |
| 5. | ABCD is a trapezium with AB is parallel to CD. If $\angle B = 70^\circ$, find the measure of $\angle C$. | 110° |
| 6. | What is the sum of measures of the interior angles of a regular Octagon? | 1080° |
| 7. | In parallelogram ABCD, if $\angle A = 85^\circ$ find the measure of $\angle C$. | 85° |
| 8. | Name the quadrilateral in which diagonal are equal and perpendicular bisectors. | Square |

SECTION- B

9. The adjacent angles of a parallelogram are in the ratio 2:3. Find the angles. 72°, 108°
10. Solve: $\frac{2x}{3} + 1 = \frac{7x}{15} + 3$ x=10
11. Solve : $\frac{x-5}{3} = \frac{x-3}{5}$ x=8
12. In a triangle two exterior angles are 125° and 130°. Find the third exterior angle. 105°
13. KLMN is a square, whose diagonals are PR = (5y + 12) cm, QS = (7y - 4) cm. Find the length of diagonal. 52cm
14. Find the number of sides of a regular polygon if its interior angle measures 135° 8
15. Solve 6(3x - 1) + 3(2x + 3) = 1 - 7x $x = \frac{-2}{31}$
16. Sum of two numbers is 95. If one exceeds the other by 15, find the numbers. 40, 55
17. Solve $\frac{7y+4}{y+2} = \frac{-4}{3}$ $y = \frac{-4}{5}$

SECTION- C

18. The sum of the digits of a two-digit number is 6. On reversing its digits, the new number, is 18 less than the original number. Find the number. 42
19. PQRS is a parallelogram. If $\angle P = 75^\circ$, Find all other angles of parallelogram. 75°, 105°, 105°
20. Three consecutive multiples of 6 is 666. Find the multiples. 216, 222, 228
21. BEST is a parallelogram. Find the values of x, y, z



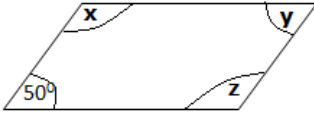
$x, y, z = 95^\circ$

22. Present ages of Ram and Ravi are in the ratio 5: 4. Ten years from now the ratio of their ages will be 6: 5. Find their present ages. 50, 40
23. The difference between Rahul's age and Sanjay's age is 10 years. 5 years after, Sanjay's age is twice as twice that of Rahul. Find their present ages. 5, 10

24. The measures of two angles of a quadrilateral are 105° and 45° and the other two angles are equal. Find the measure of each of the equal angles.

105°

25. Find the value of unknown angles x , y , z from the given parallelogram. Give reasons.



$y=50^\circ$,
 $x = z = 130^\circ$