

Dear Parents,



Session 2018-2019 is progressing quite well. We just had our 'Orientation Session' with Primary, Middle and Secondary schoolers parents and it was heartening to see your approach, co-operation and support. APS family extends gratitude for it.

A warm welcome to students who have joined our school this session. We stand committed to providing quality education to our children. The teachers follow a detailed plan of instruction that is guided by CBSE and AWES. SAMC is our pillar of strength as our teachers focus on holistic development of our students. We shall certainly continue to implement our 'Systems Approach' to support all students by using interventions to help each child make academic progress. Progress is best assured when student, parents and school are working towards same goal. It's like when every player is an active member, the team is sure to be the best and everyone is a winner. So let's strive to be all winners!

For Summer Break Assignments, practice sheets are devised to ensure revisions for coming assessment. Kindly go to the website: [www.apsbinnaguri.org](http://www.apsbinnaguri.org) and follow these steps for the same

Steps to download:

- i. Browse the website→ Home page (first page of the website)
- ii. Then check the Bulletin Board→ link will be available.

OR

Home Page→ Click on 'APS News' option→ Choose Holiday Homework option from the dropdown menu.

We would also seek your co-operation to help lift up academics. We would welcome parents to offer their names for substitute facilitators/ teachers, judges for events round the year. Kindly e-mail at [apsbinnaguril@gmail.com](mailto:apsbinnaguril@gmail.com) or give your details at Front Desk.

We truly believe that an entire community is needed to empower our students to become successful citizens. I look forward to a great year and working with such an amazing community.

Awaiting your constructive suggestions.



**ARMY PUBLIC SCHOOL BINNAGURI**  
**MATHEMATICS PRACTICE SHEET - 1, SESSION 2018-19**  
**CLASS: VIII**

**TIME:**  
**Date:**

**MM: 25**  
**Duration:** \_\_\_\_\_ **to** \_\_\_\_\_

**CHAPTER 3 → UNDERSTANDING QUADRILATERALS.**

**SECTION-A**

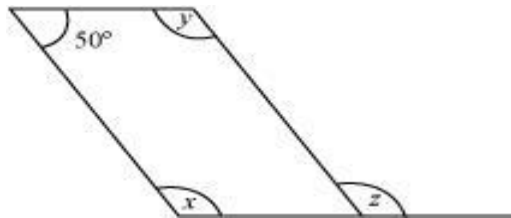
- Q1. State the name of a regular polygon of (i) 5 sides (ii) 7 sides
- Q2. Three angles of a quadrilateral are  $45^\circ$ ,  $76^\circ$ ,  $104^\circ$ . Find the fourth angle.
- Q3. How many sides does a regular polygon have if the measure of an exterior angle is  $24^\circ$
- Q4. How many diagonals does a convex quadrilateral have?
- Q5. Identify all the quadrilaterals that have four sides of equal length.

**SECTION-B**

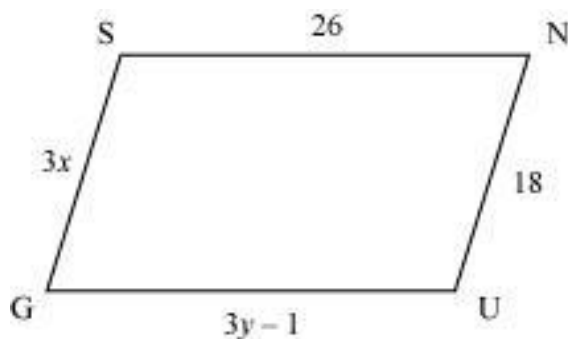
- Q6. Is it possible to have a regular polygon with measure of each exterior angle as  $32^\circ$ . Explain.
- Q7. The measures of two adjacent angles of a parallelogram are in the ratio 3 : 2. Find the measure of each of the angles of the parallelogram.
- Q8. How many sides does a regular polygon have if each of its interior angles is  $144^\circ$ .
- Q9. Find the angle sum of a convex polygon with number of sides 10 .
- Q10. Find the measure of each exterior angle of a regular polygon of 12 sides .

**SECTION-C**

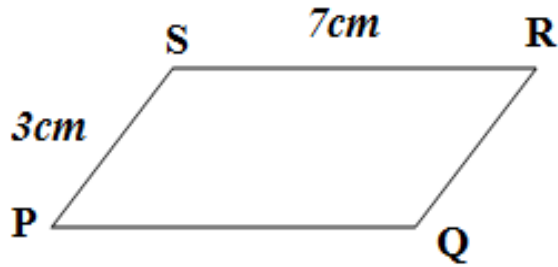
- Q11. (a) What is the minimum interior angle possible for a regular polygon? Why?  
(b) What is the maximum exterior angle possible for a regular polygon?
- Q12. Consider the following parallelogram. Find the values of the unknowns  $x$ ,  $y$ ,  $z$ .



- Q13. Find the measure of each interior angle of a regular polygon of 12 sides.
- Q14. The following figure GUNS is a parallelogram. Find  $x$  and  $y$ .

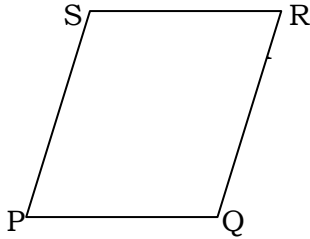


Q15. Find the perimeter of the parallelogram PQRS

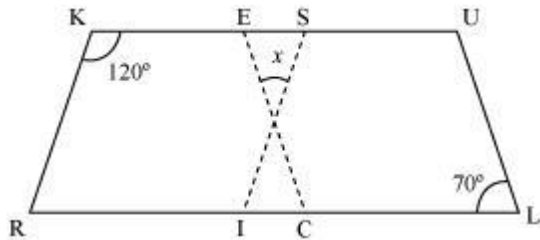


**SECTION -D**

Q16. In the figure, PQRS is a parallelogram and one of the angle  $\angle P = 80$ . Calculate other angles



Q17.

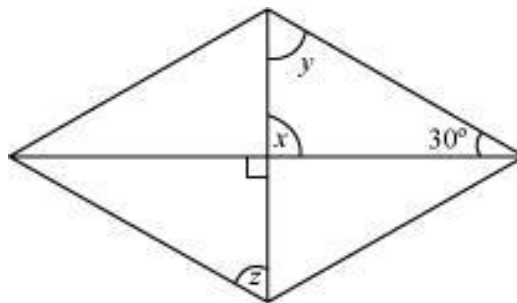


In the above figure both RISK and CLUE are parallelograms. Find the value of  $x$ .

Q18. The ratio of the two sides of a parallelogram is 1:2 and its perimeter is 60 m. Find the sides of the parallelogram.

Q19. The sum of the two opposite angles of a parallelogram is 150. Find all the angles of the parallelogram.

Q20. Consider the following parallelogram. Find the values of the unknowns  $x, y, z$ .



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**ARMY PUBLIC SCHOOL BINNAGURI**  
**MATHEMATICS PRACTICE SHEET -2, SESSION 2018-19**  
**CLASS: VIII**

**TIME:**

**MM: 25**

**Date:**

**Duration:** \_\_\_\_\_ **to** \_\_\_\_\_

**CHAPTERS 1 → RATIONAL NUMBERS**

**SECTION-A**

Q1.. Name the property under multiplication used in the following:

$$\frac{-4}{5} \times 1 = 1 \times \frac{-4}{5} = -\frac{4}{5}$$

Q2. Find the multiplicative inverse of the following.

$$-13 ,$$

Q3. Find the additive inverse of  $2\frac{9}{5}$

Q4.Reduce the rational number into lowest form if possible:

$$-\frac{60}{84}$$

Q5.Write  $\frac{2}{5}$  in an equivalent form so that the numerator is 10

**SECTION-B**

Q6. Is 0.3 the multiplicative inverse of  $3\frac{1}{3}$ ? Why or why not?

Q7. Represent the number on the number line.

$$\frac{-5}{6}$$

Q8. Find five rational numbers between

$$\frac{1}{4} \text{ and } \frac{1}{2}$$

Q9. Verify that  $-(-x)$  is the same as  $x$  for

$$x = \frac{2}{7}$$

Q10.What should be added to  $\frac{19}{27}$  to make it  $-\frac{13}{15}$

**SECTION-C**

Q11. Find three rational numbers between  $\frac{3}{5}$  and  $\frac{3}{4}$ .

Q12.By using appropriate property solve the following and also mention the property used:

$$-\frac{2}{3} \times \frac{3}{5} + \frac{5}{2} - \frac{3}{5} \times \frac{1}{6}$$

Q13. What should be added to twice the rational number  $\frac{-7}{3}$  to get  $\frac{3}{7}$  ?

Q14. Represent  $\frac{-2}{11}, \frac{-5}{11}, \frac{-7}{11}$  on the number line.

Q 15. Simplify

$$\frac{1}{12} + \left(\frac{-5}{18}\right) + \left(\frac{-7}{24}\right)$$

### SECTION-D

Q16. Write:

- (i) The rational number that does not have a reciprocal.
- (ii) The rational numbers that are equal to their reciprocals.
- (iii) The rational number that is equal to its negative.
- (iv) The reciprocal of -2.

Q17. Find ten rational numbers between  $\frac{-2}{5}$  and  $\frac{1}{2}$ .

Q18. Using appropriate properties find:

$$\frac{2}{5} \times \left(-\frac{3}{7}\right) - \frac{1}{6} \times \frac{3}{2} + \frac{1}{14} \times \frac{2}{5}$$

Q19. Find ten rational numbers between 2 and 3.

Q20. Verify the following for a=2, b=6, c=5

$$a \times (b \times c) = (a \times b) \times c$$

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**ARMY PUBLIC SCHOOL BINNAGURI**  
**MATHEMATICS PRACTICE SHEET - 3, SESSION 2018-19**  
**CLASS: VIII**

**TIME:**  
**Date:**

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**Duration:** \_\_\_\_\_ **to** \_\_\_\_\_

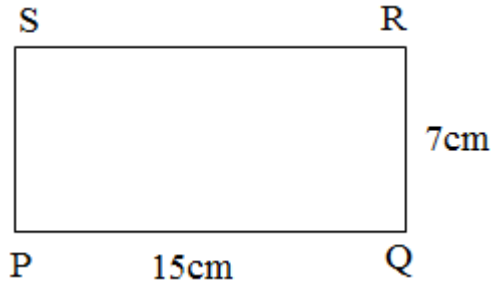
**UNDERSTANDING QUADRILATERALS**

**SECTION - A**

1. Find the sum of measures of a polygon with 9 sides.
2. Is it possible to have a regular polygon with measure of each exterior angle as  $22^\circ$  ?
3. Identify all the quadrilaterals that have
  - (i) Four sides of equal length
  - (ii) four right angles.
4. Find the number of sides of a regular polygon whose each exterior angle has a measure of  $45^\circ$  ?
5. How many diagonals does each of the following have?
  - (i) A convex quadrilateral
  - (ii) a regular octagon

**SECTION-B**

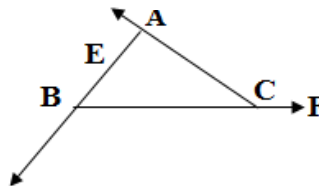
6. Each interior angle of a regular polygon is double of its exterior angle. Find the number of sides in the polygon.
7. In the given figure, find the perimeter of the parallelogram PQRS.



8. In the adjoining figure, RENT is a rectangle. Its diagonals meet at O. Find x if  $OR = 2x + 4$  and  $OT = 3x + 1$ .



9. Find  $\angle ACF$  if  $\angle CAB = 90^\circ$  and  $\angle ABC = 70^\circ$



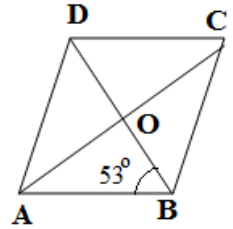
10. The measure of two adjacent angles of a parallelogram is in the ratio 3:2 find measure of each angle of the parallelogram

### SECTION-C

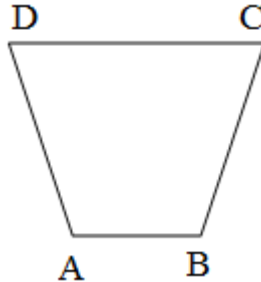
11. Prove that, if both the pairs of opposite angles of a quadrilateral are equal, then it is a parallelogram.

12. In the adjoining rhombus ABCD, diagonals intersect at o. if  $\angle ABO = 53^\circ$ ,

Find (i)  $\angle OAB$  (ii)  $\angle ADC$  (iii)  $\angle BCD$



13. In the adjoining isosceles trapezium ABCD where  $AD = BC$  and  $\angle C = 102^\circ$ . Find all the remaining angles of trapezium.

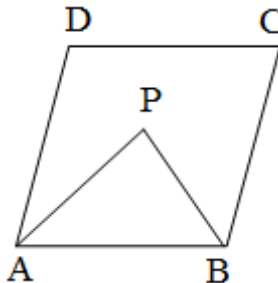


14. The lengths of two adjacent sides of a parallelogram are in the ratio 1:2. If the perimeter of parallelogram is 60cm, then find its length of its sides.

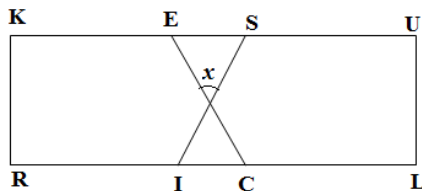
15. In quadrilateral ABCD  $\angle A : \angle B : \angle C : \angle D = 3:4:6:7$ . Find the angles of quadrilateral. Hence prove that AB and DC are parallel. Is BC also parallel to AD?

### SECTION-D

16. In the adjoining figure, ABCD is a parallelogram. If angle Bisectors of  $\angle A$  and  $\angle B$  meet at p. prove that  $\angle APB = 90^\circ$ .



17. In the following figure both RISK and CLUE are parallelograms and  $\angle R = 110^\circ$  and  $\angle L = 75^\circ$ . Find x.



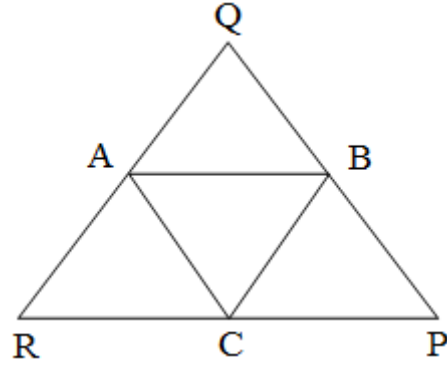
18. Prove that quadrilateral formed by joining mid points of adjacent sides of a rectangle is a parallelogram.

19. ABCD is a rectangle and diagonals intersect at o. if  $\angle OAB = 30^\circ$ , find

(i)  $\angle ACB$  (ii)  $\angle ABO$  (iii)  $\angle COD$  (iv)  $\angle BOC$ .



20. ABC is a triangle through A; B and C lines are drawn parallel to BC, CA and AB respectively, which forms a  $\Delta PQR$ . Show  $2(AB+BC+CA) = PQ+QR+RP$ .



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ARMY PUBLIC SCHOOL BINNAGURI  
MATHEMATICS PRACTICE SHEET - 4, SESSION 2018-19  
CLASS: VIII

TIME:

MM: 25

Date:

Duration: \_\_\_\_\_ to \_\_\_\_\_

**LINEAR EQUATION IN ONE VARIABLE**

**SECTION - A**

**Solve the equations for x:**

1.  $\frac{5x}{2x-1} = 2$
2.  $\frac{8}{x} = \frac{5}{x-1}$
3.  $\frac{x}{5} = \frac{x-1}{6}$
4.  $\frac{5x+1}{2x} = \frac{1}{3}$
5.  $\frac{3x-8}{2x} = 1$
6.  $\frac{2x-3}{4x+5} = \frac{1}{3}$
7.  $\frac{x}{x-5} = \frac{5}{x-1}$
8.  $5(x-1)-2(x+8) = 0$

**SECTION - B**

**Solve and verify the answers for the respective variables:**

9.  $\frac{3x+2}{2x-3} = \frac{3}{4}$
10.  $0.25x(4x-5) = 0.75x+8$
11.  $\frac{2x-1}{5} = \frac{3x+1}{3}$
12.  $3x - \frac{x-2}{3} = 4 - \frac{x-1}{4}$
13.  $4(3x-1) = 0.5x+1$
14.  $4t-3(3t+1) = 5t-4$
15.  $\frac{5(1-x)+3(1+x)}{1-2x} = 8$
16.  $\frac{0.2x+5}{3.5x-3} = \frac{2}{3}$
17.  $\frac{y-(4-3y)}{2y-(3+4y)} = \frac{1}{5}$
18.  $8x-7-3x=6x-2x-3$
19.  $10x-5-7x=5x+15-8$
20.  $\frac{9-3y}{1-9y} = \frac{8}{5}$

### SECTION-C

**Solve and verify the answers for the respective variables:**

21.  $\frac{x}{2} - \frac{1}{4} (x - \frac{1}{3}) = \frac{1}{6} (x+1) + \frac{1}{12}$

22.  $4(3p+2) - 5(6p-1) = 2(p-8) - 6(7p-4)$

23.  $\frac{1}{2}(x+1) + \frac{1}{3}(x-1) = \frac{5}{12}(x-2)$

24.  $1 - (x-2) - [(x-3) - (x-1)] = 0$

25.  $\frac{3t+5}{4} - 1 = \frac{4t-3}{5}$

26.  $0.16x(5x-2) = 0.4x + 7$

### SECTION -D

27. Two equal sides of triangle are each 4m less than three times the third side. Find dimensions of the triangle, if its perimeter is 55m.

28. A lady went to a bank with Rs 1, 00,000. she asked cashier to give her Rs 500 and Rs 1000 currency in return. She got 175 currency notes in all. Find the number of each kind of currency notes.

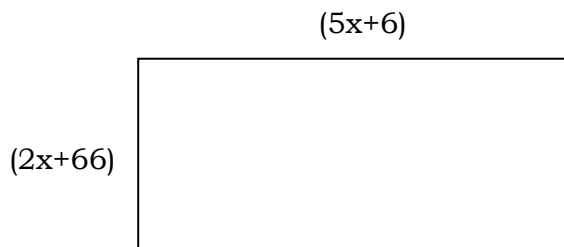
29. Denominator of a number is 4 less than its numerator. If 6 is added to numerator it becomes thrice the denominator. Find the fraction.

30. The sum of three consecutive odd natural number is 69. Find prime number out of these numbers.

31. Sum of the digits of two-digit number is 11. The given number is less than the number obtained by two obtained by interchanging the digits by 9. find the number.

32. after 12 years, kanwar shall be 3 times as old as he was 4 years ago. Find his present age.

33. For what value of x is the perimeter of shape 186cm?



34. Madhu thought of a number, doubled it and added 20 to it. On dividing the resulting number by 25, she gets 4. what is the number?

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