



# PIET SANSKRITI SENIOR SECONDARY SCHOOL

NFL TOWNSHIP PANIPAT

Academic Year – 2019-20

Grade IX HOLIDAYS HOMEWORK

ENGLISH

**NOTE: Do the entire holidays homework in the English notebook only.**

- Write a critical review of any one poem/ play/writing of any two writers out of the given list.
  - Robert Frost
  - Vikram Seth
  - Edward Lear
  - Ruskin Bond
  - W.B Yeats
  - William Wordsworth
- Write a story in about 150-200 words to illustrate ‘Do Good, Get Good.’
- Write four lines each of English in the respective notebooks everyday during the summer break.

हिन्दी

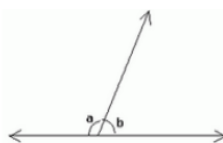
**NOTE: Do the entire holidays homework in the Hindi notebook only.**

- रहीम जी के नीति संबंधी कोई चार दोहे आकर्षक ढंग से लिखिए | (A4 size sheet) (कक्षा-कार्य उत्तर-पुस्तिका में)
- आपके शहर में 16 जून को राहगिरी है | उससे सम्बन्धित एक आकर्षक विज्ञापन तैयार कीजिए | (A4 size sheet) (कक्षा-कार्य उत्तर-पुस्तिका)
- प्रतिदिन कोई चार पंक्तियाँ सुलेख लिखिए | (कहानी, कविता, कहावत अथवा उक्ति के रूप में)
- करवाए गये कक्षा कार्य की पुनरावृत्ति कीजिए |

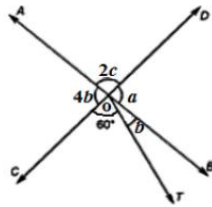
MATHEMATICS

**NOTE: Do the entire holidays homework in the Maths notebook only.**

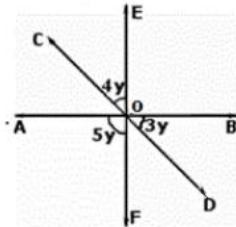
- Write a rational number between 4 and  $\frac{9}{2}$ .
- If x is a rational and y is irrational number, then what type of number is xy ?
- What is the rationalizing factor of  $\sqrt{3} - 1$  ?
- Write 3 rational numbers between  $-\frac{3}{4}$  and  $-\frac{1}{2}$ .
- Find two irrational numbers between  $\sqrt{2}$  and  $\sqrt{3}$ .
- Find two irrational numbers between 3 and 5.
- Multiply (a)  $\sqrt{7}$  by  $\sqrt{35}$  (b)  $\sqrt[3]{2}$  by  $\sqrt[4]{3}$
- Arrange in ascending order :  $\sqrt[8]{90}$ ,  $\sqrt[4]{10}$ ,  $\sqrt{6}$
- Arrange in descending order :  $\sqrt[4]{10}$ ,  $\sqrt[3]{6}$ ,  $\sqrt{3}$
- If  $a = 1 - \sqrt{2}$ , then find the value of  $(a - \frac{1}{a})^3$
- If  $x = 3 + 2\sqrt{2}$ , find the value of  $x^2 + (\frac{1}{x})^2$
- Evaluate : (a)  $\sqrt{5 + 2\sqrt{6}}$  (b)  $\sqrt{8 - 2\sqrt{15}}$
- If  $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a - \sqrt{3}b$  then find the value of a and b, where a and b are rational numbers.
- Prove that  $\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$
- What is the degree of zero polynomial ?
- Factorise :  $25x^2 - 10x + 1 - 36x^2$
- Factorise :  $a^2 + b^2 + 2ab + 2bc + 2ca$
- Factorise :  $27x^3y^3 - 8z^3$
- Factorise :  $x^8 - y^8$
- Factorise :  $x^6 - 64$
- Find the values of a and b so that the polynomial  $x^3 - ax^2 - 13x + b$  has  $x-1$  and  $x+3$  as factors.
- If  $x-3$  and  $x - \frac{1}{3}$  are both factors of  $ax^2 + 5x + b$ , show that  $a = b$ .
- The polynomials  $ay^3 + 3y^2 - 3$  and  $2y^3 - 5y + a$  when divided by  $y - 4$  leaves remainders m and n respectively. Find the value of a if  $m + n = 0$
- Without actually calculating the cubes, evaluate:  $(18)^3 + (-13)^3 + (-5)^3$
- Use remainder theorem to find the remainder when p(x) is divided by q(x):  
 $P(x) = 2x^2 - 5x + 7$   $q(x) = x - 1$
- In the figure a is greater than b by one third of a right angle find the values of a and b



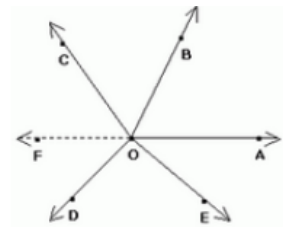
27 In the figure two lines intersect AB and CD intersect at O . Find the values of a, b, c .



28 In the figure ,find the value of y.

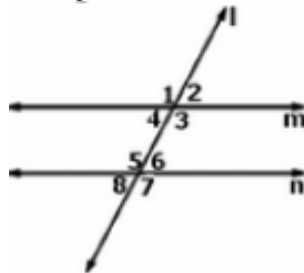


29 Rays OA , OB , OC , OD , OE have common point O. Prove that  $\angle AOB + \angle BOC + \angle COD + \angle DOE + \angle EOA = 360^\circ$



30

In figure  $m \parallel n$  ,  $\angle 1 = 62^\circ$  , find  $\angle 6, \angle 7$



Revise chapters : 1 ,2 and 6

### SCIENCE

- Write a report on the origin of evolution of life.(150-200 words)
- What is evaporation? Discuss the factors affecting evaporation.
- Why in a graph plotted between distance and time, we always put time on x-axis and distance on y-axis?
- On the same velocity-time graph, represent uniform acceleration, positive acceleration and negative acceleration.
- Name a device that measures distance travelled by automobiles. A body travels a distance of 15 m from A to B and then moves a distance of 20 m at right angle to AB. Calculate the total distance travelled and the displacement.
- Learn the syllabus covered till the month of may.

**Note: All the work has to be done in the c.w notebook.**

### SOCIAL SCIENCE

#### **PROJECT WORK**

As a District Magistrate of a district of Delhi, which is in seismic zone IV (high risk zone). What are the measures or activities you would organize to develop awareness among the school children and the communities around your school? Make project file of at least 10 A4 pages with images.

Revise the syllabus completed till May

### COMPUTERS

Revise chapter 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 7<sup>th</sup> and 8<sup>th</sup>.  
Read chapter 4<sup>th</sup>.