

NEW ERA PUBLIC SCHOOL
ENGLISH ASSIGNMENT
DECEMBER – JANUARY (2016-17)
CLASS IX

Topics:

- **Article writing**
- **Notice writing**
- **Story writing**

Q1. You are Sakshi, a student of class IX. The reason for anemia, you feel, is wrong eating habits, eating junk food etc. You decide to write an **article** for the school magazine on the importance of eating a balanced diet. Write the article in not more than 200 words.

Q2. Every now and then, you come across news of railway mishaps. You feel concerned and to create awareness about the same you write an article for your school magazine about the possible causes of such mishaps and how these can be avoided. Write an **article** as Naveen in about 150-200 words.

Q3. Rohan Kumar is the Secretary of Residents' Welfare Association of Palam Vihar. The Association is planning to organize a campaign banning the use of plastic bags in the colony. Mr. Mohan decides to put up a notice regarding the same. Write the **notice** in not more than 50 words.

Q4. Your school has decided to choreograph a dance drama for the school annual day. As the Cultural Secretary of the school, write a **notice** in not more than 50 words for your school notice board inviting talented students to assemble in the auditorium on 15th February. They will be selected by the famous dancer Sarala Nagpal.

Q5. Write a **story** with the help of the given clues in about 150 words. Give a suitable title.

Rahul travelling in metro ----- he smells a certain fragrance ----- it reminds him of his past life ----- he recalls everything ----- he comes to a conclusion

Q6. Complete the following **story** in about 150 words

One day when I woke up in the morning, I screamed after looking at myself in the mirror as I had transformed into

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NEW ERA PUBLIC SCHOOL
MATHEMATICS ASSIGNMENT
JANUARY (2016-17)
CLASS: IX

TOPIC:

- 1. Constructions**
- 2. Statistics**
- 3. Probability**
- 4. Circles**

1. Construct $\angle DEF = 30^\circ$. Using $\angle DEF$, construct (i) $2\angle DEF$ (ii) $\frac{1}{2}\angle DEF$
2. Draw $\angle MON = 63^\circ$. Using $\angle MON$, construct (i) $2\angle MON$ (ii) $\frac{1}{2}\angle MON$
3. Construct a $\triangle ABC$ in which $BC = 3$ cm, $\angle B = 30^\circ$ and $AB + AC = 4.2$ cm.
4. Construct a $\triangle ABC$ in which $BC = 4.9$ cm, $\angle B = 60^\circ$ and $AB - AC = 1.3$ cm.
5. Construct a $\triangle PQR$ in which $\angle Q = 30^\circ$, $\angle R = 45^\circ$ and $PQ + QR + RP = 9$ cm.
6. Construct a $\triangle XYZ$ in which $\angle Y = 30^\circ$, $\angle Z = 90^\circ$ and the perimeter of $\triangle XYZ$ is 10cm.
7. “ $\triangle XYZ$ can be constructed if $\angle Y = 90^\circ$, $\angle Z = 75^\circ$ and perimeter of $\triangle XYZ$ is 11.5cm.” Do you agree with the statement? Justify your answer.
8. Is it possible to construct a triangle PQR in which $QR = 7$ cm, $\angle R = 45^\circ$ and $PR - PQ = 5$ cm?
9. What is the class mark of the class interval 130 – 150?
10. Find the median of the given data: 78, 56, 22,34,45,54,39,68,54,and 84.
11. The mean of five numbers is 30. If one number is excluded, their mean becomes 28. Find the excluded number.
12. If the mean of the observations: $x, x+ 3, x +5, x + 7, x + 10$ is 9, find the mean of the last three observations.
13. The mean of 100 observations is 50. If one of the observations which was 50 is replaced by 150. Find the new mean.
14. The mean of 25 observations is 36. If the mean of first 13 observations is 32 and that of last 13 observations is 40, find the 13th observation.
15. Heights (in cm) of 30 girls of Class IX are given below:
140, 140, 160, 139, 153, 153, 146, 150, 148, 150, 152,146, 154, 150, 160, 148, 150, 148, 140, 148, 153, 138,152, 150, 148, 138, 152, 140, 146, 148.
Prepare a group frequency distribution table for this data.
16. The following observations are arranged in ascending order :
26, 29, 42, 53, $x, x + 2, 70, 75, 82, 93$
If the median is 65, find the value of x .
17. A class consists of 50 students out of which 30 are girls. The mean of marks scored by girls in a test is 73 (out of 100) and that of boys is 71. Determine the mean score of the whole class.

18. The mean of 50 observations was found to be 80.4. But later on, it was discovered that 96 was misread as 69 at one place. Find the correct mean.
19. Ten observations 6, 14, 15, 17, $x + 1$, $2x - 13$, 30, 32, 34, 43 are written in an ascending order. The median of the data is 24. Find the value of x .
20. The points scored by a basketball team in a series of matches are as follows:
17, 2, 7, 27, 25, 5, 14, 18, 10, 24, 48, 10, 8, 7, 10, 28
Find the median and mode for the data.

21. Find the mean of the following distribution:

x_i	10	15	20	25	30	35	40
f_i	4	6	8	18	6	5	3

22. If the mean of the given data is 16, find the missing frequency 'f' from the following data.

x_i	5	10	15	20	25
f_i	2	8	f	10	5

23. Find the value of p and q, if the mean of the following distribution is 1.46.

x_i	5	2	3	0	1	4	Total
f_i	5	p	25	46	q	10	200

24. The following table gives the frequencies of most commonly used letters a, e, i, o, r, t, u from a page of a book :

Letters	a	E	i	O	r	t	u
Frequency	76	125	82	70	86	95	78

Represent the above information by a bar graph.

25. The following table shows the pocket money (in ₹) given to the children per day by their parents:

Pocket Money(in ₹)	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
No. of Children	12	23	35	20	10

Represent the data in the form of a histogram.

26. A die is thrown 1000 times and the outcomes were recorded as follows:

Outcomes	1	2	3	4	5	6
Frequency	180	150	160	170	150	190

If the die is thrown once more, find the probability of getting

- (i) a number 5 (ii) an even number (iii) a prime number (iv) a number less than 3.

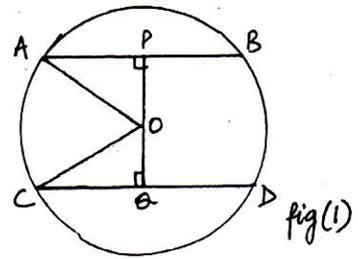
27. On one page of a telephone directory, there was 200 telephone numbers. The frequency distribution of their unit place digit is given below:

Digit	0	1	2	3	4	5	6	7	8	9
Frequency	22	26	22	22	20	10	14	28	16	20

A number is chosen at random, find the probability that the digit at its unit's place is

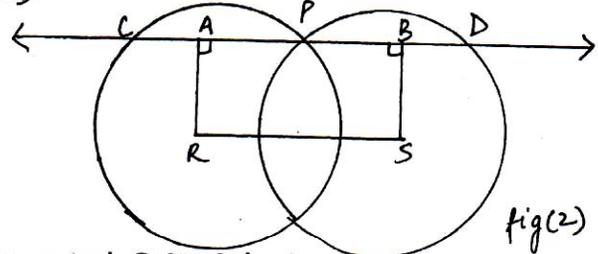
- (i) 6 (ii) a multiple of 6 (iii) a non – zero even number (iv) an odd number

28. In fig(1), O is the centre of the circle of radius 5 cm.
 $OP \perp AB$, $OQ \perp CD$, $AB \parallel CD$, $AB = 6$ cm and $CD = 8$ cm.
 Determine PQ .

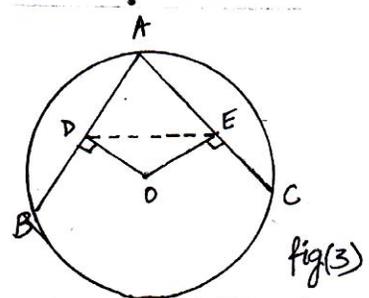
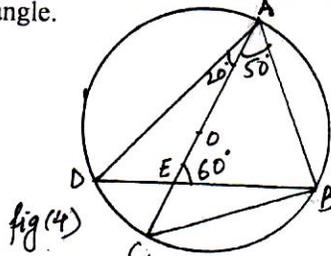


29. Prove that the line joining the mid points of two parallel chords of circle passes through the centre of the circle.

30. In fig(2), two circles whose centres are R and S intersect at P . Through P a line parallel to RS , intersecting the circle at C and D is drawn. Prove that $RS = 2CD$



31. In fig(3), AB and CD are two equal chords of a circle whose centre is O . If $OD \perp AB$ and $OE \perp AC$, prove that ADE is an isosceles triangle.

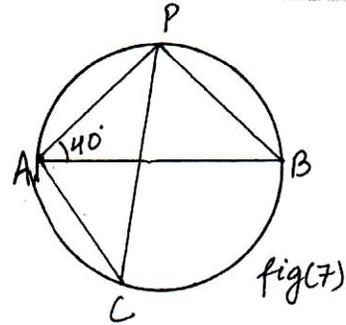
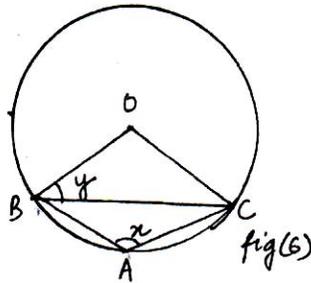
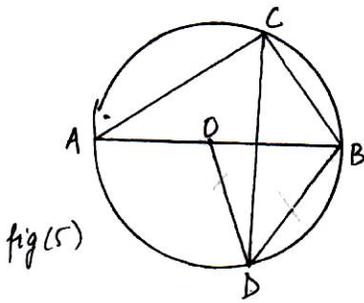


32. In fig(4), find
 (i) $\angle ACB$
 (ii) $\angle DCA$

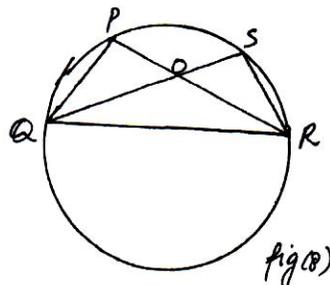
33. In fig(5), O is the centre of the circle, $BD = OD$ and $CD \perp AB$. Find $\angle CAB$.

34. In fig(6), O is the centre of the circle. If $\angle BAC = x$ and $\angle OBC = y$, Prove that $x - y = 90^\circ$.

35. In fig(7), AB is the diameter of the circle and $\angle PAB = 40^\circ$. Find $\angle PCA$.

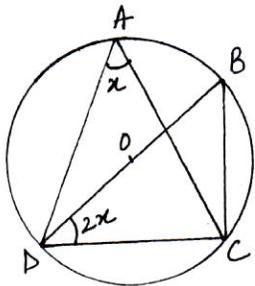


36. In fig(8), P, Q, R and S are four points on a circle. PR and QS intersect at a point O . If $\angle ORS = 20^\circ$ and $\angle QOR = 130^\circ$, find $\angle QPR$.

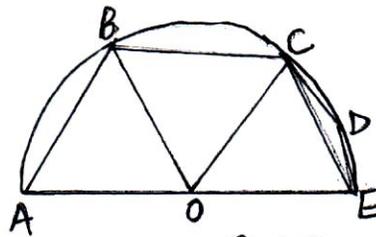


37. In fig(9), O is the centre of the circle. Find the value of x .

38. In fig(10), O is the centre and AE is a diameter of the semicircle ABCDE. If $AB = CD$ and $\angle AEC = 60^\circ$ then find (i) $\angle CBE$ (ii) $\angle CDE$ (iii) $\angle AOB$.
Also, prove that $BO \parallel CE$.



fig(9)



fig(10)

NEW ERA PUBLIC SCHOOL
SCIENCE ASSIGNMENT
DECEMBER-JANUARY (2016-17)
CLASS: IX

Topics :

1. **Structure of Atom**
2. **Work and Energy**

1. What are canal rays? How were they discovered?
2. What were the observations made by Rutherford in his gold foil experiment?
3. Draw the structure of a sodium atom. How is it different from a Na^+ ?
4. Define isotopes and isobars? Give the two isotopes of oxygen.
5. Complete the following table:

Atomic no:	Mass no:	No: of neutrons	No: of protons	No: of electrons	Name of atomic species
9	19				
		14	13		

6. Give the electronic configuration and valency of the following elements:
nitrogen, chlorine, silicon and aluminium .
7. The water stored in the dam is made to fall on the turbine from certain height.
Describe the energy changes involved in the process.
8. Give an example in each case where the work done by a force is (a) positive
(b) negative (c) zero.
9. What is the work to be done to increase the velocity of a car from
30 km/hr to 60 km/hr if the mass of the car is 1500 kg?
10. Calculate the units of energy consumed by 100 watt electric bulb in 5 hours?
11. A bulb is rated 100 W. How much energy does it consume in one hour?
12. Sheetal did an audit of the electricity consumption in her home and
made some ground rules that everyone had to follow to save electricity.
 - a. If Sheetal's monthly bill is 200 units, how much energy is this in joules?
 - b. What values does Sheetal depict?

Topics :

1. Why Do We Fall Ill
2. Sound
3. Natural Resources

1. Give the expanded form of AIDS and HIV.
2. What is the contribution of Alexander Fleming in the field of medicine?
3. Give 2 examples of diseases caused by bacteria, virus and protozoa.
4. How do anti bacterial drugs work?
5. Sangeeta insisted that all the coolers of her house are dried after the summer season and there are no puddles of water around their house. She told her mother that she was preventing malaria and dengue by doing so.
 - a. Name the causative organisms of malaria and dengue.
 - b. Name the vectors of these two diseases.
 - c. What values does Sangeeta show?
6. Name and define the characteristic of sound that helps to differentiate between sounds of same pitch and loudness?
7. If the frequency of a tuning fork is 400 Hz and the speed of sound in air is 350 m/s, find how far sound travels while the tuning fork makes 16 vibrations.
8. A hospital uses an ultrasonic scanner to locate tumours in a tissue. What is the wavelength of the ultrasound in the tissue in which the speed of ultrasound is 1.5 km/s? The operating frequency of the scanner is 4 MHz's.
9. Draw the labeled diagram of human ear and explain how it works.
10. 30 vibrations are produced by a slinky in 10 s when a jerk is given to it. Find its time period and frequency.
11. State the 3 factors that influence wind movement.
12. What is acid rain? Name 2 gases that cause acid rain.
13. "Atmosphere is essential for life". List 5 points in support of this statement.
14. Draw a diagram to illustrate the nitrogen cycle in nature.
15. How is the use of large amount of fertilizers and pesticides harmful to the soil?

NEW ERA PUBLIC SCHOOL
SOCIAL SCIENCE ASSIGNMENT
DECEMBER-JANUARY (2016-17)
CLASS IX

Assignment 1

- Q1. What were the first written laws of cricket?
- Q2. Mention the changes that transformed the game of cricket in the 18th century.
- Q3. “The Battle of Waterloo was won on the playing fields of Eton”. Explain.
- Q4. Why did Mahatma Gandhi condemn the pentangular tournament?
- Q5. What innovations did Kerry Packer introduce which changed the nature of the game?
- Q6. Define poverty.
- Q7. How is poverty estimated?
- Q8. Discuss the causes of poverty in India.
- Q9. Give a brief account of inter-state disparities in poverty in India.
- Q10. Explain the features of:
- a. NREGA b. PMRY

Assignment 2

- Q1. Explain the main features of montane forests.
- Q2. Define virgin vegetation.
- Q3. What steps have been taken by the govt. of India to protect flora and fauna?
- Q4. Distinguish between Tropical Evergreen Forests and Deciduous Forests.
- Q5. Discuss the major components of population growth.
- Q6. Define density of population, age structure, death rate and birth rate.
- Q7. Explain five factors which are responsible for the uneven distribution of population.
- Q8. Discuss the dimensions of food security?
- Q9. Differentiate between seasonal hunger and chronic hunger.
- Q10. What is Buffer Stock? Why is it created?

न्यू इरा पब्लिक स्कूल

अभ्यास-पत्र

कक्षा-नवम

विषय-हिन्दी

1. अपठित पद्यांश को पढ़कर निम्नलिखित प्रश्नों के उत्तर दीजिए-

सतपुड़ा के घने जंगल
नींद में डूबे हुए से
ऊँघते अनमने जंगल।

झाड़ ऊँचे और नीचे
चुप खड़े हैं आँख मीचे;
घास चुप है, काश चुप है
मूक शाल, पलाश चुप है;
बन सके तो धँसो इनमें
धँस न पाती हवा जिनमें
सतपुड़ा के घने जंगल
नींद में डूबे हुए-से
ऊँघते, अनमने जंगल!

सड़े पत्ते, गले पत्ते
हरे पत्ते, जले पत्ते
वन्य पथ को ढक रहे-से

चंपक दल में पले पत्ते,
चलो इन पर चल सको तो
दलो इनको दल सको तो

ये घिनौने-घने जंगल
नींद में डूबे हुए-से
ऊँघते, अनमने जंगल!

अटपटी उलझी लताएँ
डालियों को खींच लाएँ
पैर को पकड़े अचानक
प्राण को कस लें कँपाएँ
साँप-सी काली लताएँ
बला की पाती लताएँ
लताओं के बने जंगल
नींद में डूबे हुए-से
ऊँघते अनमने जंगल।

1. प्रस्तुत कविता का उपयुक्त शीर्षक दीजिए।
2. सतपुड़ा के जंगल के अनमने होने के दो कारण क्या हैं?
3. 'धँस न पाती हवा' का क्या अर्थ है?
4. लताओं की तुलना कहाँ और किससे की गई है?
5. जंगल को घिनौना क्यों कहा गया है?
6. पत्तों का पालन-पोषण कहाँ हुआ है?
7. 'घिनौने जंगल' से संबंधित पंक्ति का उल्लेख कीजिए।
8. रेखांकित शब्दों में अलंकार बताइए।

9. कविता की भाषा कौन सी है?
2. निम्नलिखित शब्दों के सभी वर्ण पृथक कीजिए-
- 1 शुद्ध- _____
 - 2 मिश्र- _____
 - 3 हिंस्र- _____
 - 4 कृत- _____
 - 5 त्रिवेदी- _____
 - 6 शृंखला- _____
3. हिन्दी के छात्रों के लिए ' विशेष हिन्दी व्याकरण' बाज़ार में आई है। एक विज्ञापन तैयार कीजिए ।

4. अपनी बड़ी बहन को पत्र लिखकर सूचना दें कि छात्रावास जाते समय उन्होंने जो पौधा रोपा था, उसमें अब फूल खिलने लगे हैं।
