VAISH MODEL SR. SEC. SCHOOL, BHIWANI
Summer Vacation Home Assignment
Session : 2024-25
Class : VIII

English

1. Do Comprehension Passage 1, 2 given in English Grammar Book (Page No. 195, 196)
2. Write a speech on the topics 'Health and Hygiene' and 'Good Deeds reflect Good Character'.
3. Write and learn the rules of 'The Present Tense'.
4. Learn Chapters – 1, 2 (Text Book) (W/M, D/W, Q/A)
   Poem – 1, 2

Hindi

1. पाठ्य पुस्तक वसंत भाग–3 :
   पाठ–1: लाख की चूड़ियाँ
   पाठ–2: बस की यात्रा
   पाठ–3: दीवानों की हस्ती
2. उपर्युक्त पाठों को अभ्यास पुस्तिका से याद कीजिए व कॉपी पूरी कीजिए।
3. उपर्युक्त प्रत्येक पाठ से 10–10 कठिन शब्द अलग पुस्तिका में लिखिए।
4. भारत की खोज :
   पाठ–1: अहमदनगर का किला
   पाठ–2: तलाश
   पाठ–3: सिंधु घाटी की सभ्यता
   उपर्युक्त पाठों को याद कीजिए व अभ्यास पुस्तिका पूर्ण कीजिए।
5. व्याकरण पुष्प–8
   पाठ–4 : शब्द विचार
   पाठ–11: उपसर्ग
   पाठ–12: प्रत्यय
   पाठ–14: संज्ञा
   पाठ–15: लिंग
   पाठ–29: मुहावरे और लोकोक्तियाँ (1 से 32 तक)
   उपर्युक्त पाठों को याद कीजिए व पुस्तक पूर्ण कीजिए।
6. अनुच्छेद –1 दर्शनीय स्थल 2. मेरा प्रिय त्योहार
7. पत्र :
   (i) आपके पिताजी का कुछ समय पहले ही आगरा ट्रांसफर हुआ है। घर का समाचार देते हुए पिता जी को पत्र।
   (ii) बैंक में नया खाता खुलवाने के लिए बैंक–प्रबंधक को पत्र।
   उपर्युक्त अनुच्छेद और पत्र अलग उत्तर पुस्तिका में लिखिए व याद कीजिए।

Sanskrit

1. रुचिरा तृतीयो भाग :

    प्रथमः पाठः – सुभाषितानि

    द्वितीयः पाठः – बिलस्य वाणी न कदापि में श्रुता

    तृतीयः पाठः – डिजीभारतम्

2. व्याकरण – पाठ 1: सन्धि–प्रकरणम्।

    पाठ 3: संख्या संख्यावाचक–शब्दाः च

3. शब्द रूप : देव, मुनि, साधु, लता, शब्दरूपों को लिखिए व याद लिखिए।

4. धातु रूप : पठ्, चल्, गम्, लिख (लट्, लृट्, लङ्, लोट्, लकार) में लिखिए व याद कीजिए।

5. परियोजना कार्य : पाँच कहानियाँ या पाँच कविताएँ संस्कृत में लिखिए। (A4 size की sheet पर)

6. रुचिरा व व्याकरण के अध्याय याद कीजिए तथा अपनी रुचिरा (पाठ्य पुस्तक) व्याकरण व कॉपी पूरी कीजिए।

Mathematics

1. Revise the following chapters from NCERT Maths Book.

    Ch-1 Rational Numbers

    Ch-2 Linear Equations

    Ch-10 Powers and exponents

2. Prepare a project file on the following topic (any one)

    (i)   Rational numbers

    (ii)   Laws of exponents

    (iii)   Indian Women Mathematician

    (iv)   Uses of Mathematics in daily life (any four uses)

    Points to be noted for the project file

    ➢ Front page with school name, roll numbers, students name, name of topic class, section etc. It must be decosated.

    ➢ List of contents with page numbers

    ➢ Acknowledgement

    ➢ Summary and conclusion must be handwritten by the students

    ➢ Bibliography

    ➢ Material used for the project file must be eco-friendly.

3. Do the given Assignment in a separate note book.

4. Complete your Fair notebook.

Science

1) Complete the fair notebook upto Chapter-3.

2) Complete the Lab manual.

3) Learn Question/Answers and exercise of the Chapter 1, 2 and 3.

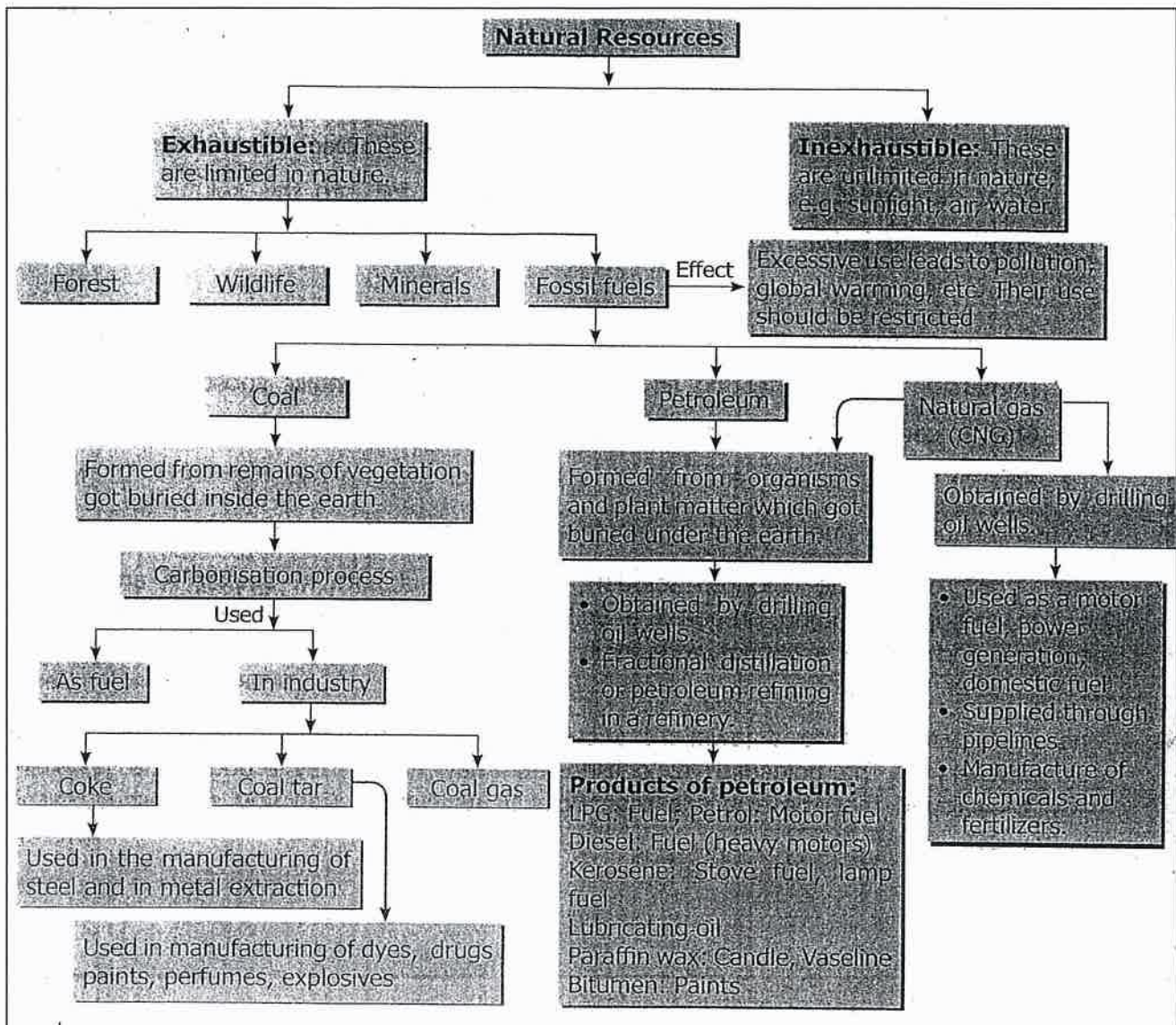4) Prepare any one model of your choice from the following topics

Microscope, plough, Hoe, Leveller, cultivator, Tractor, Seed drill, Sickle, Combine, Thresher, Shovel
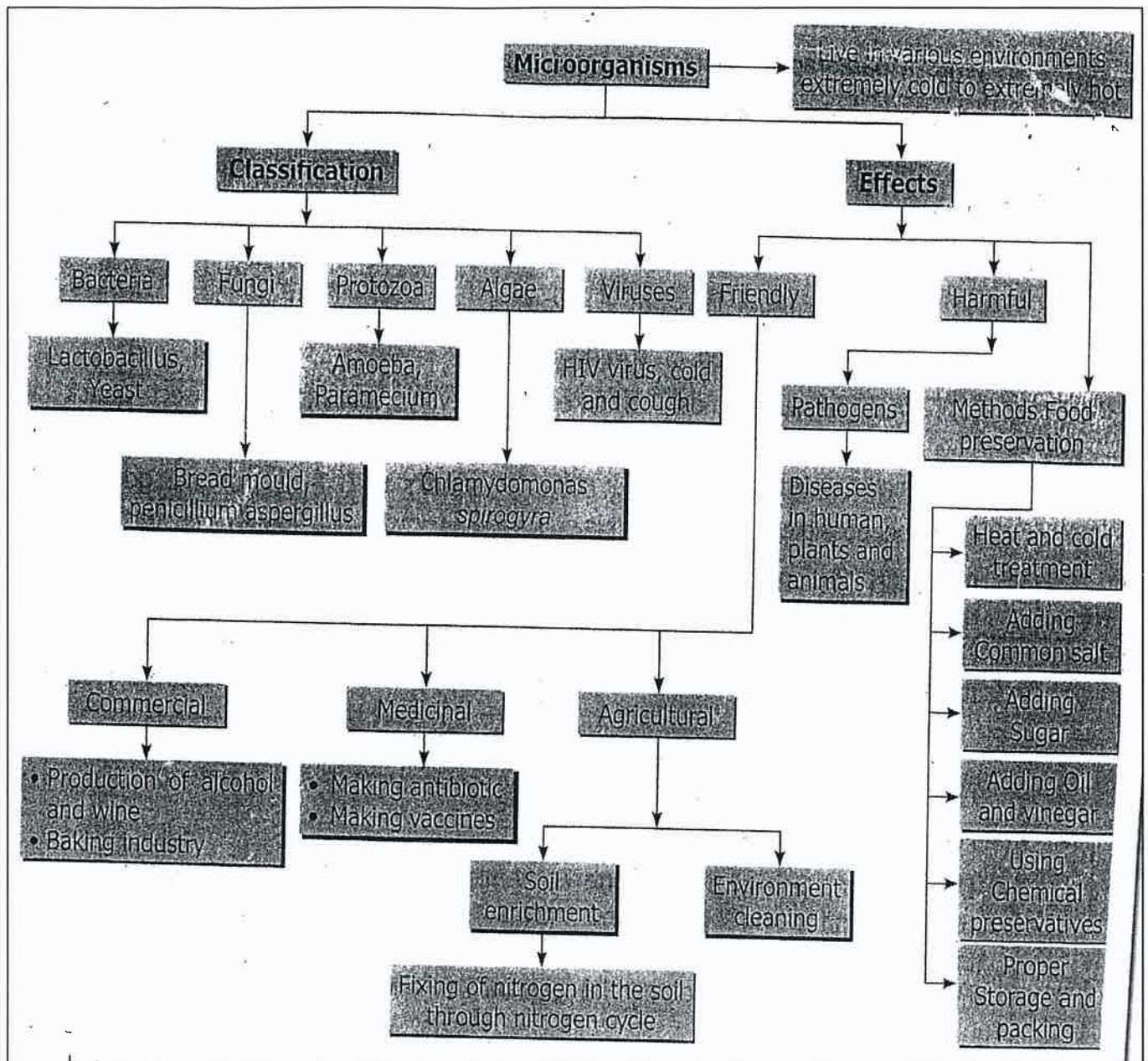
You can use cardboard, Thermocol, clay etc for preparing model.

5) Prepare a laminated name tag of plant assigned as per Roll No.
(Use A5 size drawing sheet)

Scientific Name	Common Name	Roll No.
1. Vinca rosea	Sadabahar	1-5
2. Dracaena reflexa	song of India	6-10
3. Fishtail palm	Palm	11-15
4. Hibiscus rosa	China rose	16-20
5. Rosa	Rose	21-25
6. Cycas circinalis	Cycas	26-30
7. Ficus benjamina	Ficus	31-35
8. Saraca asoca	Ashoka	36-40
9. Platycladus orientatlis	Thuja	41 to last

6) Make a chart showing mind map on any one of the following topic with the help of photocopy provided with homework.

Microorganisms → Live in various environments extremely cold to extremely hot

Classification

Effects

Classification:
- Bacteria → Lactobacillus, Yeast
- Fungi → Bread mould penicillium aspergillus
- Protozoa → Amoeba, Paramecium
- Algae → Chlamydomonas spirogyra
- Viruses → HIV virus, cold and cough

Effects:
- Friendly
- Harmful

- Pathogens → Diseases in human, plants and animals
- Methods Food preservation

- Commercial → Production of alcohol and wine; Baking industry
- Medicinal → Making antibiotic; Making vaccines
- Agricultural → Soil enrichment → Fixing of nitrogen in the soil through nitrogen cycle; Environment cleaning

Methods Food preservation:
- Heat and cold treatment
- Adding Common salt
- Adding Sugar
- Adding Oil and vinegar
- Using Chemical preservatives
- Proper Storage and packing

Social Science

Learn these following chapters :

History : Ch-2 : From Trade to Territory
  The Company Establishes Power

Geography :Ch-2: Land, Soil, Water, Natural Vegetation and Wildlife Resources.

Civics : Ch-2 : Understanding Secularism.

Complete your notebook

Activity Work :

Make a chart on Methods of soil conservation.

OR

Make a project on the Indian constitution (key features) in scrap file.

Coding [910]

1. Complete your notebook as per syllabus covered in your class and also learn it.
2. Prepare a chart on any one of the following topics :
   - ❖ IoT (Internet of Things)
   - ❖ Sensors
   - ❖ Arduino UNO
3. Do practice on https://arcade.makecode.com with the help of pages 1 to 14 (from Project Booklet)
4. Do practice on https://www.tinkercad.com and make a circuit design on Traffic Light.

Art (SUPW)

1. Make a poster on any one of the following topic on A3 size sheet
   - ➢ Girls Education
   - ➢ Corruption
   - ➢ Voting Rights
2. Shade the drawing given in your Drawing Book on Page No. – 12, 14, 20, 22, 24.
3. Prepare a Mandala Art on Mdf board or card board.

RATIONAL NUMBERS

Date: ....

A. Tick (✔) the correct option.

1. The standard form of $\dfrac{33}{-77}$ is

   (a) $\dfrac{-33}{77}$ ☐   (b) $\dfrac{-3}{7}$ ☐   (c) 11 ☐   (d) $\dfrac{-77}{33}$ ☐

2. The rational number equivalent to $\dfrac{-24}{64}$ is

   (a) $\dfrac{-1}{2}$ ☐   (b) $\dfrac{-48}{128}$ ☐   (c) $\dfrac{3}{8}$ ☐   (d) $\dfrac{-2}{6}$ ☐

3. The number of rational numbers between $\dfrac{-5}{17}$ and $\dfrac{5}{19}$ is

   (a) 11 ☐   (b) 17 ☐   (c) 19 ☐   (d) infinite ☐

B. Fill in the boxes with =, < or >.

1. $\dfrac{-5}{8}$ ☐ $\dfrac{45}{-72}$ 2. $\dfrac{-3}{7}$ ☐ $\dfrac{-6}{13}$ 3. -3 ☐ $\dfrac{-18}{5}$

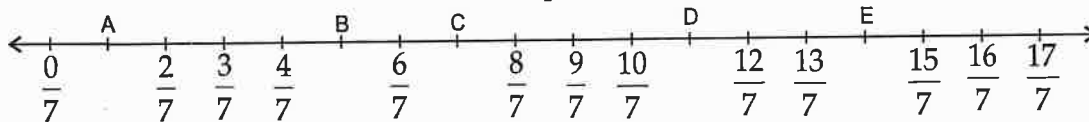**C. State whether the following statements are True or False.**

1. Every rational number is an integer.   ☐

2. Zero is not a rational number.   ☐

3. $\dfrac{-3}{5}$ is a rational number, right to $\dfrac{-1}{3}$ on a number line.   ☐

4. There are countless number of rational numbers between two rational numbers.   ☐

5. A rational number between two natural numbers is always a natural numbers.   ☐

D. Arrange the following rational numbers in ascending order:

$\dfrac{-5}{12}, \dfrac{7}{-18}, \dfrac{-2}{3}, \dfrac{4}{-9}$ _____

E. Write the rational number for each point labelled with a letter:

A   B   C   D   E

$\dfrac{0}{7}$ $\dfrac{2}{7}$ $\dfrac{3}{7}$ $\dfrac{4}{7}$ $\dfrac{6}{7}$ $\dfrac{8}{7}$ $\dfrac{9}{7}$ $\dfrac{10}{7}$ $\dfrac{12}{7}$ $\dfrac{13}{7}$ $\dfrac{15}{7}$ $\dfrac{16}{7}$ $\dfrac{17}{7}$

F. Represent the numbers $\dfrac{5}{3}, -\dfrac{2}{3}$ on the number line.

Ans:

G. Find five rational numbers between:

1. $\dfrac{7}{5}$ and $\dfrac{7}{6}$ _____   2. $\dfrac{8}{5}$ and $\dfrac{8}{7}$ _____

Teacher's Signature : ....

Mathematics - 8 ✦✦✦

ADDITION AND SUBTRACTION OF RATIONAL NUMBERS

Date: ....

A. Tick (✔) the correct option.

1. If $x = \dfrac{1}{5}$ and $y = -\dfrac{1}{5}$, then

   (a) $x + y > 0$ ☐ (b) $x - y < 0$ ☐ (c) $x + y = \dfrac{2}{5}$ ☐ (d) $x - y = \dfrac{2}{5}$ ☐

2. The additive inverse of $\dfrac{-2}{11}$ is

   (a) $\dfrac{11}{2}$ ☐ (b) 1 ☐ (c) $\dfrac{2}{11}$ ☐ (d) 0 ☐

3. The sum of two rational numbers is –5. If one of the numbers is $\dfrac{-7}{3}$, then other number is

   (a) $\dfrac{8}{3}$ ☐ (b) $\dfrac{-2}{3}$ ☐ (c) $\dfrac{-12}{3}$ ☐ (d) $\dfrac{-8}{3}$ ☐

B. Fill in the blanks:

1. $\dfrac{-11}{19} + \dfrac{13}{6} = \dfrac{13}{6} + (\underline{\quad})$

2. $\dfrac{-41}{73} + (\underline{\quad}) = 0$

3. $(\underline{\quad}) - 0 = \dfrac{-14}{19}$

4. $-\left(\dfrac{-19}{30}\right) = (\underline{\quad})$

C. State whether the following statements are True or False.

1. Rational numbers can be added in any order. ☐

2. $\left|\dfrac{-3}{7} + \dfrac{1}{-7}\right| = \dfrac{4}{7}$ ☐

3. The additive inverse of $\dfrac{20}{55}$ is $\dfrac{20}{55}$ ☐

D. Add the following rational numbers:

1. $\dfrac{2}{29}$ and $\dfrac{3}{-29}$ ☐

2. -2, $\dfrac{-8}{9}$ and $\dfrac{11}{6}$ ☐

E. Subtract the following rational numbers:
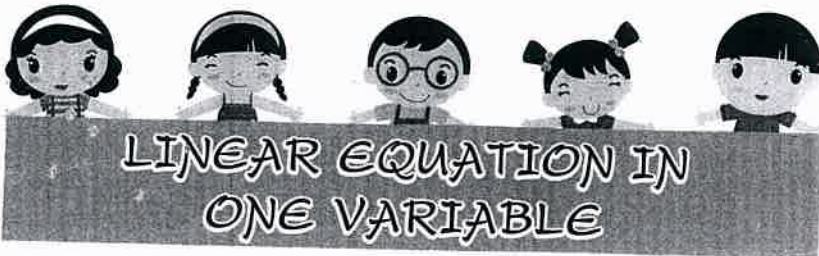
1. $\dfrac{3}{7}$ from $\dfrac{1}{2}$ ☐

2. $\dfrac{-13}{9}$ from the sum of $\dfrac{2}{9}$ and $\dfrac{-1}{12}$ ☐

F. Let $x = \dfrac{1}{3}$, $y = \dfrac{-5}{6}$ and $z = \dfrac{-1}{2}$, then verify:

1. Closure property of addition for x and y. ☐

2. Commutative property of addition for y and z. ☐

3. Associative property of addition for x, y and z ☐

LINEAR EQUATION IN ONE VARIABLE

Date: ....

A. Tick (✔) the correct option.

1. The solution of $15 - x = 2x - 3$ is

   (a) 5 ☐ (b) 6 ☐ (c) 4 ☐ (d) 1 ☐

2. If $3(x - 2) = 5(x - 4)$, then the value of x is

   (a) 4 ☐ (b) 1 ☐ (c) 7 ☐ (d) 6 ☐

3. In a class of 42 students, three-fourth of the number of boys, are girls, then the number of boys is

   (a) 24 ☐ (b) 18 ☐ (c) 30 ☐ (d) 21 ☐

B. Fill in the blanks.

1. If $2x - 3 = x + 1$, then $x = $ _____

2. If $3y - 23 = y - 11$, then $y = $ _____

3. If $(x - 2) = \dfrac{1}{2}(x + 4)$, then $x = $ _____

4. If $\dfrac{2x+3}{x+1} = \dfrac{3}{2}$, then $x = $ _____

C. State whether the following statements are True or False.

1. $2x - 3 = 3 - 2x$ is a linear equation. ☐

2. A number must be added to both sides of an equation. ☐

3. A number cannot be subtracted from both sides of an equation. ☐

4. Both sides of an equation can be multiplied/divided by a non-zero number. ☐

D. Solve:

1. $4z + 3 = 6 + 2z$ ☐

2. $0.6(6 + t) = 0.4(16 - 2t)$ ☐

3. $2y + \dfrac{5}{3} = \dfrac{26}{3} - y$ ☐

4. $\dfrac{n}{2} - \dfrac{3n}{4} + \dfrac{5n}{6} = 21$ ☐

5. $\dfrac{7x - 1}{9} + 15 = \dfrac{(6x - 4)9}{10}$ ☐

6. $\dfrac{x + 5}{3x + 3} = \dfrac{3}{5}$ ☐

LINEAR EQUATION IN ONE VARIABLE

Date: ....

A. Tick (✔) the correct option.

1. Which of the following is not a linear equation?

   (a) $3x + 7 = 13$ ☐   (b) $9x^2 = 81$ ☐   (c) $x + y = 3$ ☐   (d) $\dfrac{2}{x} = 5$ ☐

2. The difference between two consecutive even numbers is

   (a) 3 ☐   (b) 0 ☐   (c) 1 ☐   (d) 2 ☐

3. If five times a number is added to itself, gives 30, then the number is

   (a) 5 ☐   (b) 6 ☐   (c) 10 ☐   (d) 15 ☐

B. Fill in the blanks:

1. $x + 3 = 11$ is a linear equation in variable _____.
2. The value of the variable that satisfies the equation is called _____ of the equation.
3. If $2m + 1 = 9$, then $m = $ _____.
4. If $x + (x + 1) + (x + 2) = 18$ then $x = $ _____.
5. Amit is 5 years younger to Ashish. If the sum of their ages is 45, then the age of Ashish is _____.

C. State whether the following statements are True or False.

1. Solution of a linear equation cannot be a rational number. ☐
2. $x = 3/2$ is the solution of the equation $6x - 1 = 8$. ☐
3. If $2m + (2m + 2) = 26$, then $m = 7$. ☐

D. Solve:

1. $x - 2 = 7$ ☐   2. $4y = 16$ ☐   3. $\dfrac{m}{6} = 4$ ☐

4. $\dfrac{15}{4} - 7x = 9$ ☐   5. $\dfrac{x}{3} + 1 = \dfrac{7}{15}$ ☐

LAWS OF EXPONENTS

Date: ....

A. Tick (✔) the correct option.

1. $\dfrac{-27}{125}$ is expressed in exponential form as

   (a) $\left(\dfrac{3}{5}\right)^{3}$ ▢   (b) $\left(\dfrac{-3}{5}\right)^{3}$ ▢   (c) $\left(\dfrac{3}{5}\right)^{-3}$ ▢   (d) $\left(\dfrac{-3}{5}\right)^{-3}$ ▢

2. $x^{a-b} \times x^{b-c} \times x^{c-a}$ is equal to

   (a) 1 ▢   (b) 0 ▢   (c) x^{abc} ▢   (d) x^{a-b-c} ▢

3. If $\left(\dfrac{3}{5}\right)^{-4} \times \left(\dfrac{3}{5}\right)^{3x} = \left(\dfrac{5}{3}\right)^{-5}$, then x is

   (a) 0 ▢   (b) –1 ▢   (c) 2 ▢   (d) 3 ▢

B. State whether the following statements are True or False.

1. In $\left(-\dfrac{1}{2}\right)^{5}$, base is 2 and exponent is 5. ▢

2. $3^{0} = 7^{0}$ implies $3 = 7$ ▢

3. If $2^{m-1} = \dfrac{1}{2^{-2}}$, then $m = 3$ ▢

C. Express the following in exponential form:
   1. 4^{-3} with base 2 _____   2. 27^{-3} with base 3 _____

D. Evaluate:

   1. $(3^{0} + 4^{-1}) \times 2^{2}$ _____   2. $(2^{-1} \times 4^{-1}) \div 2^{-2}$ _____   3. $\left(\dfrac{3}{4}\right)^{-1} \times \left(\dfrac{4}{15}\right)^{-1}$ _____

E. Find the value of:

   1. $\left(\dfrac{1}{2}\right)^{-2} + \left(\dfrac{1}{3}\right)^{-2} + \left(\dfrac{1}{4}\right)^{-2}$ _____   2. $\left(\dfrac{5}{8}\right)^{-7} \times \left(\dfrac{8}{5}\right)^{-4}$ _____

F. Simplify:

   1. $\left\{\left(\dfrac{2}{3}\right)^{2}\right\}^{3} \times \left(\dfrac{1}{3}\right)^{-4} \times 3^{-1} \times 6^{-1}$ _____   2. $\dfrac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$ _____

G. Find the value of the variables:

   1. $(-3)^{x+1} \times (-3)^{5} = (-3)^{7}$ _____   2. $\left(\dfrac{-1}{4}\right)^{3} \times \left(\dfrac{1}{4}\right)^{4} \div 4^{-2} = -(4)^{10y+1}$ _____

H. If $\dfrac{x}{y} = \left(\dfrac{-1}{3}\right)^{-3} \div \left(\dfrac{2}{3}\right)^{-4}$, find the value of $\left(\dfrac{x}{y}\right)^{-2}$. _____

I. By what number should $\left(\dfrac{1}{3}\right)^{-2}$ be multiplied so that the product may be equal to $\left(\dfrac{-5}{8}\right)^{-2}$? _____