

St. Mary's School, Dwarka Holiday Homework Class: VII Worksheet 4

Subject: English

General Instructions:

- 1) The work should be done neatly and systematically.
- 2) The given questions are to be done in the English notebook.
- 3) Attempt all questions.

Q1. Read the following passage carefully:

In the depths of tropical rainforests, a fascinating event occurs — hundreds of tree species bloom together in perfect harmony, even though they are often miles apart. This phenomenon, known as synchronized blooming, has puzzled scientists for decades. Despite being of different species, these trees somehow sense the same environmental signals and bloom at the same time, like members of an invisible orchestra.

The exact reason behind this coordinated blooming is still unknown, but researchers believe it may be influenced by seasonal changes, rainfall patterns, and even the phases of the moon. What makes this more surprising is that many of these trees are not closely related, and yet they participate in this grand natural event.

One major advantage of synchronized blooming is that it increases the chances of cross-pollination, which is essential for the survival of plant species. It also attracts a wide range of pollinators, such as bees, butterflies, and birds, supporting a rich and diverse ecosystem. This collective flowering creates a short window of abundance, which helps these trees outcompete seed predators by overwhelming them with seeds.

Scientists continue to study this mysterious event, as understanding it better may help protect the delicate balance of rainforest biodiversity and respond to the effects of climate change.

Based on your understanding of the passage, answer the following questions: (5x1=5)

α_1	7	TT 7	1 1	4 4
(Ta	CC /	$\mathbf{W} \cap$	rkch	eet 4

a) protects trees frb) ensures trees grc) increases chanced) delays seed disp	om insects ow taller es of cross-pollina	synchronized blooming men	tioned in the passage?	(1)
ii. What does the	phrase ''an invisi	ble orchestra'' most likely su	ggest in the context of the	passage?
a) A group of treeb) A musical evenc) A well-coordinad) A concert organ	t held in the rainfo ated but unseen na	prest		(1)
iii. Why is it surp	rising that many	of the trees bloom together?		(1)
a) All blooming trb) Human activities	ees belong to the es are strengthenir looming supports	ng environmental signals. a wide range of wildlife.		(1)
-		th its antonym from the pass forests is completely <u>random</u>	O	(1)
Q2. Write a story title to your story		s with the help of the followi	ng beginning. Also give a	suitable (3)
_	•	when I stumbled upon a dusty of map tucked between the pages	•	us, I opened
Q3. Fill in the bla	nks with the mos	t appropriate option:	(1/2	\times 4 = 2)
		for the local orphar		
encouraged them to	o plan more such	events (iv) the year	ar.	
i. a. picnicii. a. severaliii. a. collectiveiv. a. besides	b. trip b. little b. careless b. over	c. donationc. somec. urgentc. during	d. drive d. few d. private d. between	

Q4. Fill in the blanks with the most appropriate option:		$(\frac{1}{2}\times 4=2)$	
The little puppy looked (i)		as it sat alone in the rain. A kind pa	sserby (ii) down
and picked it up ge	ently. He wrapped	l it in a towel and took it (iii)	The puppy wagged its tail
(iv)			
i. a. cheerful	b. helpless	c. furious	d. loud
ii. a. jumped	b. walked	c. bent	d. lay
iii. a. away	b. inside	c. ahead	d. around
iv. a. thankfully	b. lazily	c. silently	d. proudly
Q5. Read the follo	owing extract an	d answer the questions that follow:	$(2\times 1=2)$
Ice floes hid Beyond all known Planes that ride with the winds are blown	where		
a) The ice floes ar	e dangerous and ne hidden in mystesily found on ever	erious and unknown places.	(1)
a) through deep of b) over the ice floor c) where the wind d) beyond the more	ceans es s are blowing	planes ride?	(1)
Q6. Why was Swa (Answer in 30-40		ed when Rajam admitted he did not k	know how to play cricket?
Q7. How does Net truth? (Answer in		econd prism show his spontaneity and	commitment to scientific (2)
Q8. From the poework? (Answer is	,	infer about the fishermen's values ar	nd attitude towards their (2)
`	,	e first rain in the story? How does it so	
(Answer in 50-60	_	and the sury: How does it so	(3)

Class 7 Worksheet 4	
Activity:	
Q10. Draw Mandala Art with seven concentric rings or squares on a cardboard a color of the rainbow (Red, Orange, Yellow, Green, Blue, Indigo, Violet).	l, each representing (2)
Page 4	

Subject-Hindi

प्रश्न 1 गद्यांश को ध्यानपूर्वक पढ़कर दिए गए प्रश्नों के उत्तर दीजिए— (1x5=5)

अच्छे मूल्यों का पालन करना हमारे जीवन में बहुत महत्वपूर्ण है। सच्चाई, ईमानदारी, सहानुभूति और सहयोग जैसे मृत्य हमें एक बेहतर इंसान बनाते हैं। ये मृत्य हमें समाज में सकारादमक योगदान करने और मजबूत रिश्ते बनाने में मदद करते हैं। अच्छे मूल्यों को अपनाकर, हम न केवल अपने लिए बल्कि दूसरों के लिए भी एक अच्छा उदाहरण प्रस्तुत करते हैं। जब हम इन मूल्यों को अपने जीवन में उतारते हैं, तो हमारा व्यक्तित्व निखरता है और हम समाज में एक आदर्श व्यक्ति के रूप में जाने जाते हैं। अच्छे मुल्यों के पालन से हम अपने समाज को भी बेहतर बना सकते हैं। ये मूल्य हमें दूसरों के प्रति सहानुभूति और समझदारी के साथ व्यवहार करने के लिए प्रेरित करते हैं। जब हम सच्चाई और ईमानदारी के साथ जीते हैं, तो हमारे रिश्ते मजबूत होते हैं और हमारा आत्मविश्वास बढ़ता है। अच्छे मूल्यों का पालन करने से हम न केवल अपने लिए बल्कि अपने परिवार और समाज के लिए भी एक सुरक्षित और समृद्ध भविष्य बना सकते हैं।इसके अलावा, अच्छे मूल्य हमें जीवन की चुनौतियों का सामना करने में भी मदद करते हैं और हमें सही निर्णय लेने की क्षमता प्रदान करते हैं। जब हम इन मूल्यों को अपने जीवन में प्राथमिकता देते हैं, तो हम अपने लक्ष्यों को प्राप्त करने में अधिक सफल होते हैं और हमारे जीवन में संतुष्टि और शांति बढती है। इस प्रकार, अच्छे मूल्यों का महत्त्व हमारे व्यक्तिगत और सामाजिक जीवन में बहुत अधिक है, और हमें इन्हें अपने जीवन में अपनाने का प्रयास करना चाहिए |

- (i) जब हम मूल्यों को अपने जीवन में उतारते हैं, तो हमारा क्या निखरता हैं?
- (क) परिश्रम
- (ख) आदमनिर्भरता
- (ग) व्यक्तित्व
- (घ) सौन्दर्य
- (ii) मूल्य हमें किनका सामना करने में भी मदद करते हैं ?
- (क) जीवन को अपनाने का
- (ख) दूसरों का विरोध करने का
- (ग) जीवन की चुनौतियों का।
- (घ) किसी की सहायता करने का।

(iii) निम्नितिखेत कथन (A) तथा कारण ((R) को ध्यानपूर्वक पढ़कर उचित विकल्प का चयन कीजिए |

कथन (A) जब हम सच्चाई और ईमानदारी के साथ जीते हैं, तो हमारे रिश्ते मजबूत होते हैं और हमारा आत्मविश्वास बढ़ता है ।

कारण(R) स्वावलंबी व्यक्ति के सामने असम्भव कार्य भी सम्भव दिखने लगता है।

- (क) कथन (A) तथा कारण (R) दोनों गलत हैं ।
- (ख) कथन (A) गलत है तथा कारण (R) सही है ।
- (ग) कथन (A) सही है लेकिन कारण (R) गलत है ।
- (u) कथन(A) तथा कारण(R) दोनों सही हैं। तथा कारण(R) उसकी सही व्याख्या करता है।
- (iv) हमें एक बेहतर इंसान बनाने में मदद करते हैं?
- (v) 'असंतुष्टि' का विलोमपद गद्यांश में से छाँटकर लिखिए।

निम्नलिखित प्रश्नों के उद्वर दीजिए—

 $(1\times5=5)$

प्रथन 2 'मेरी कक्षा के बच्चे घूमने जा रहे हैं।' वाक्य में रेखाकिंत शब्द_कक्षा संज्ञा का कौन–सा भेद है?

प्रश्न 3 14, 18, 22, 29 इन संख्याओं को शब्दों में लिखिए।

प्रश्न 4 'अंत भले का भला' इस लोकोक्ति का अर्थ बताइए।

प्रश्न 5 'आज मेरी माताजी ने सात किलो आम खरीदे।'—इस वाक्य में से कौन-सा शब्द परिमाणवाचक विशेषण का है?

प्रश्न-6 यह मेरी कलम है।

इस वाक्य में रेखांकित पद में सर्वनाम का उदाहरण लिखिए।

प्रश्न-७ निम्नलिखित प्रश्नों के उदतर दीजिए—

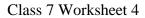
 $(1\frac{1}{2} \times 2 = 3)$

- (क) हिमालय से निकलने वाली निदयों को 'बेटियाँ' कहकर क्यों संबोधित किया गया है?
- (ख) 'हम पंछी उन्मुक्त गगन के' कविता में पिजरे में बंद पंछी कैसा जीवन जीना चाह रहे हैं? स्वतंत्रता का आपके जीवन में क्या महत्त्व हैं?

प्रश्न 8 निम्नलिखित प्रश्नों के उदतर दीजिए—

 $(1\times2=2)$

- (क) महाराज शांतन के बाद हस्तिनापुर की गद्दी पर कौन बैठा?
- (ख) केवटराज की क्या शर्त थी?



प्रश्न-9 आप गर्मी की छुट्टियाँ किस प्रकार व्यतीत करेंगें इसका वर्णन करते हुए अपने मित्र को पत्र लिखिए — (5x1=5)
प्रश्न-10 काल को दर्शाने वाला एक वृक्ष को कागज अथवा किसी अनुपयोगी वस्तु से बनाइए | (5×1=5)

Subject: Sanskrit

निर्देश- 1 प्रदत्त प्रश्नानाम् उत्तरम् संस्कृत पुस्तिकायाम् एव लिखत।

- 2 प्रश्नानाम् उद्वरम् पूर्णवाक्येन लिखित्वा रिक्वस्थानानि रेखांकिव करणीय।
- 3 कार्यम् स्वच्छं ,शुद्धं एवं स्पष्टं लेखम् एव लेखनीय।

प्रश्न 1 अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत -

 $(1 \times 5 = 5)$

एषः मम विद्यालयः अस्ति | मम विद्यालस्य नाम सेंट मेरीज् अस्ति | अत्र अनेके शिक्षकाः शिक्षिकाः च सिन्ति | सर्वे अति योग्याः सिन्त | शिक्षकाः छात्रान् स्नेहेन पाठयन्ति | सर्वेषाम् अध्यापकानाम् व्यक्तित्वम् उत्तमम् अस्ति | ते अत्र आदर्शानाम् नागरिकाणाम् निर्माणम् कुर्वन्ति | ते छात्राणाम् सर्वागीण विकासम् कुर्वन्ति | मम विद्यालये छात्राः परिश्रमिणः सिन्ति | ते मनोयोगेन पठन्ति | विद्यालये एकः पुस्तकालये अपि अस्ति | अत्र अनेकानि पुस्तकानि अपि सिन्ति | पुस्तकालये छात्राः तिष्ठन्ति, पठन्ति, लिखन्ति च | अत्र छात्राः पुस्तकम्, समाचारपत्रम्,पत्रिकाम् च पठन्ति | पुस्तकालये सर्वे छात्राः तूष्णीम् उपविशन्ति |

- (i) शिक्षकाः कान् स्नेहेन पाठयन्ति?
- (क) वृद्धान्
- (ख) बालकान्
- (ग) छात्रान्
- (घ) जनान्
- (ii) सर्वेषाम् अध्यापकानाम् व्यक्तित्वम् कीदृशम् अस्ति?
- (क) उद्त्तमम्
- (ख) सामान्यम्
- (ग) निम्नम्
- (घ) कटुकम्
- (iii) छात्राः कथं पठन्ति?
- (क) मनोयोगेन
- (ख) योगेन
- (ग) विश्रामेण
- (घ) आलस्येन
- (iv) सर्वे छात्राः क्त्र तूष्णीम् उपविशन्ति?
- (क) क्रीडाक्षेत्रे
- (ख) पुस्तकालये

- (ग) गृहे
- (घ) देवालये
- (V) 'तिष्ठन्ति' इति पदस्य अर्थम् लिखत।
- (क) लिखते हैं।
- (ख) खाते हैं।
- (ग) पढ़ते हैं।
- (ਬ) ਕੈਰ<u>ਰੇ</u> हैं।

प्रश्न २ चित्रं दृष्टवा दत्तपदानां सहायतया रिक्तस्थानानि पूरयत — $(\frac{1}{2} \times 4 = 2)$

मञ्जूषा — सूर्यः , प्रसन्नाः , विद्यालयः ,घटिका ।



- (1) अस्मिन् चित्रे ---- अस्ति ।
- (2) आकाशे ——— उद्यति। (3) चित्रे एका ——— अपि अस्ति।
- (4) बालकाः बालिकाः च ——— भवन्ति ।

प्रश्न $\mathbf 3$ चित्रम् रचयित्वा त्रयस्य पुष्पाणाम् नामानि संस्कृते लिखत्। $(1 \times 3 = 3)$

प्रश्न 4 अधोलिखिते संवादे मञ्जूषायाः उचितपदानि चित्वा रिक्तस्थानानि पुरयत $(1/2 \times 4 = 2)$ मञ्जूषा — विद्यालयम् , अपि , आगच्छति, क्त्र । **रमनः** — हे मित्र! त्वम् [1]----- गच्छसि? धीरेन्दः — अहम [2]-----गच्छामि। रमनः — अहम् [3]----- विद्यालयम् गच्छामि । धीरेन्द्रः — मम भाता अपि [4]-----। प्रश्न ५ मञ्जूषायां प्रदत्तैः उचित अव्ययपदैः रिक्तस्थानानि प्रयत = $(1/2 \times 4 = 2)$ मञ्जूषा - अद्य , तथा , एव , सदा (1) यथा पिता ----- पुत्र अस्ति । (2) अहम् ----- आगरा नगरं गच्छामि । विद्यालये----- अवकाशः अस्ति | (3)(4) अनिलः ----- सत्यं वदति। प्रश्न 6 अधोलिखितेषु रिक्तस्थानेषु प्रकृति प्रत्ययं संयोज्य वाक्यपूर्ति कुरूत = $(\frac{1}{2} \times 2 = 1)$ (1) जनाः मोदकं ----- (खाद् + कट्वा) प्रसन्नाः भवन्ति । (2) बालकः ----- गृहं (गम् +कृत्वा) पाठं पठिता। $(1/2 \times 2 = 1)$ प्रश्न ७ रेखांकित पदम् आधृत्य प्रश्नं निर्मीयताम् -(1) सर्वदा स्वावलंबने सुखम्। (2) रमायाः पिता समाजस्य प्रतारणाम् असहत्। प्रश्न 8 शब्दानाम् अर्थैम् लिखत -समृद्धः , मुद्रणम् , साम्प्रतम् , विपन्नः प्रश्न ९ अधोलिखितानां धात्नाम् लकारं पुरूषं वचनम् च लिखत -(1) गमिष्यति (2) कूर्वन्ति परियोजना कार्य प्रश्न 10 तीनों लिंगों को चित्रों की सहायता से दर्शाइए। $(5\times1=5)$

Subject: Mathematics

No. of questions: 10 M.M. 25 O1: Choose the correct answer: (2) (i) What is 8Kl equal to? (a) 8000 L (b) 800 L (c) 0.08 L(d) 8L (ii) What is the value of $25.25 \div 10$? (a) 1.525 (b) 15.25 (c) 0.02525 (d)2.525Q2: Fill in the following blanks: (2) (i) $3.763 \times --- = 3763$ (ii) $2.56 \text{ Kg} = \dots \text{ g}$ (iii) ---- \times 1000 = 6.8 $(iv) - - \div 100 = 0.045$ Q3: Represent 1.3, 3.8 and 4.1 on the number line. (2) Q4: Find the value of the following: (a) 15 - 9.363(b) 5.28 - 1.4 + 3.116(2) Q5: The sum of three decimals is 450.63. What is the third decimal, if two of them are 126.53 and 95.54? (2) Q6: Write the following as fraction in lowest terms: (3) (ii) 0.75 (iii) 0.944 (i) 0.066 Q7: If 2.54 cm makes an inch, how many inches will 73.92 cm make? (3) Q8: Find the area of a rectangle whose length is 5.6 m and breadth is 3.5 m. (3) Q9: Find the ratio of the following in the simplest form: (3) (i) 75 paise to Rs 3 (ii) 3 m 5 cm to 35 cm (iii) 48 min to 2 hours 40 min Q10: Activity-Using a 10 x 10 grid and colours, find the product of decimals 0.7 x 0.3 on a graph sheet. (3) Do the activity in the Maths lab file.

Subject: Science

1

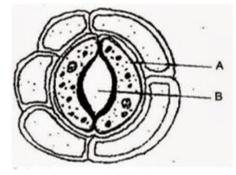
2

2

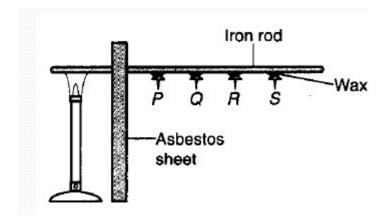
- 1. Aman accidentally touched a metal spoon kept in a hot bowl of soup and felt a burning sensation. Why did the spoon become hot?
 - (a) Metal attracts heat from the air
 - (b) Metal is a good conductor of heat
 - (c) Heat is produced by the soup only
 - (d) Soup turns metal hot by changing its state
- 2. Arjun noticed a yellow thread-like plant growing over a tree that had no green leaves. What kind of nutrition does it show?
 - (a) Autotrophic
 - (b) Saprotrophic
 - (c) Parasitic
 - (d) Symbiotic

For question Q3, two statements are given- one labelled as Assertion (A) and other labelled as Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

- (a) Both A and R are true, and R is correct explanation of assertion.
- (b) Both A and R are true, but R is not a correct explanation of assertion.
- (c) A is true, but R is false.
- (d) A is false, but R is true.
- 3. **Assertion** (**A**): Metals feel colder than wood on a winter morning. 1 **Reason** (**R**): Metals are good conductors of heat, so they transfer heat from our hands faster.
- 4. Identify the following parts of stomata. Write the function of stomata.



5. Your teacher demonstrated the following activity during a Science practical class, wherein a metal rod with equidistant nails fixed with wax, was heated using a burner. As the rod got heated, the nails began to fall. What will be the order in which the nails will fall and by which process?



- 6. Distinguish between Sea and Land breeze with the help of a well labelled diagram.
- 7. After a heavy meal, Anaya felt sleepy and sluggish. Her mother told her, "Your body is busy digesting food."

3

2

- a) What happens to the food in the small intestine after digestion?
- b) Why is the small intestine long and coiled?
 - c) How do the nutrients get absorbed in the small intestine?
- 8. During the rainy season, Radhika noticed that her mother was very busy cleaning and keeping things safe from the fungus attack. On seeing this Radhika also started helping her mother.
 - a) What is fungi?
 - b) What is the mode of nutrition in fungi?
 - c) Why do fungi appear during rainy season?
- 9. During summer vacation, Somya and her younger brother Rihan visited their grandmother's village. One afternoon, they noticed something interesting. The iron hand pump outside the house was very hot, while the wooden handle on the door of the shed nearby remained cool, even though both were in direct sunlight.
 - a) Why did Rahul feel the iron hand pump to be hotter than the wooden handle even though both were under the sun?
 - b) What kind of materials are iron and wood in terms of heat conduction?
- c) Imagine you are designing a cooking pot. What kind of material would you use for:
 - i) The body of the pot ii) The handle?
- 10. You are provided with a metal spoon, a plastic spoon, and a wooden stick. Conduct an experiment to find out which of these materials is a better conductor of heat. Use the following materials: small pieces of butter/wax and a bowl of hot water.

Follow the steps below and record your observations:

- 1. Fix a small piece of butter or wax at one end of each item (metal spoon, plastic spoon, wooden stick).
 - 2. Place the other end of each material into a bowl of hot water (ensure the wax end remains outside the water).
 - 3. Start a stopwatch and observe which butter/wax melts first.
 - 4. Record your findings in the table below:

Material	Time Taken for Wax to Start Melting (in seconds)	Did the Wax Melt? (Yes/No)	Conductor or Insulator
Metal			
Spoon			
Wooden			
Stick			
Plastic			
Spoon			

- a) Which material conducted heat the fastest? Why?
- b) Which materials did not allow the wax to melt quickly?
- c) Based on your observations, what do you understand about conductors and insulators of heat?

Subject: Social Science

No. of questions: 10	M.M. 25
Q1. What is the view of historians regarding the origin of 'Rajputs'?	1
Q2. Define Apartheid.	1
Q3. Who were known as Samantas?	1
Q4. Describe the irrigation system of Chola kingdom	2
Q5. Differentiate between sial and sima.	2
Q6. Mention any four uses of rocks and minerals.	2
Q7. Sedimentary rocks are formed from sediments. Give a reason.	3
Q8. 'Discrimination is evil. How does it affect society?	3
Q9. Name three powerful kingdoms of the early medieval period. Mark them on	
the political map of India.	5
Q10. What do you know about the military achievements of Rajaraja I and Rajendra Chola?	5

Activity: Topic: Voices for Equality, Research and Presentation on Inspiring Figures.



Make a report on A3 sheet

- **Ø** Research individuals throughout history and in the present day who have championed the cause of equality in different areas (race, gender, disability, etc.).
- **Ø** Choose a person or a group of people who have fought for equality (e.g., Mahatma Gandhi, Rosa Parks, Malala Yousafzai, disability rights advocates).

Subject: Computer Science

M.M. 25

Tick the correct option.

1x4=4

- 1. What is the branch of computer science that focuses on developing machines which can think and work like human beings?
 - a. Human Intelligence
- b. Natural Intelligence
- c. Artificial Intelligence

- 2. AI can be divided into how many categories?
 - a. 1

b. 2

- c. 3
- 3. Which category of AI can perform dedicated tasks with intelligence?
 - a. Weak AI

b. Strong AI

- c. Super AI
- 4. Which of the following is an example of Weak AI?
 - a. Drones

- b. Self-Driving Cars
- c. IBM Watson

Solve the following Puzzle

1x5=5

5. I can play chess or recommend a show, But beyond one task, I just don't go. From Siri to spam filter, I'm your aide, Yet outside my skill, I can't invade.

Hint: I specialize in only one task.

Who am I?

6. I think like a human, or so they say,

Learning and reasoning in a flexible way.

I aim to match your intellect and mind,

But in the real world, I'm hard to find.

Hint: I'm the bridge between narrow and super AI.

Who am I?

7. I don't think, I don't feel, I just repeat,

Trained with data to perform and complete.

I'm not conscious and I lack a will,

But in factories, I show great skill.

Hint: I'm the current practical form of AI.

Who am I?

8. I listen, I talk, and I understand,

From Alexa to Siri, I lend a hand.

I deal with language, words, and tone,

I help your smart device feel less alone.

Hint: I'm how machines understand human language.

Who am I?

9. I help computers learn without being told,

With patterns and data, my power unfolds.

I'm not hardcoded; I improve each day,

In the world of AI, I lead the way.

Hint: I'm a key method of AI that gets better over time.

Who am I? -

Fill in the blanks.	1x8=8
10 is the branch of computer science that focuses on developing machines which	ch
can think and work like human beings.	
11. Machine based on AI performs specific tasks.	
12 AI surpasses human intelligence.	
13. IBM's Watson is an example of	
14 AI is in the hypothetical stage.	
15 is the game gives the answer in different languages.	
16 block of MakeCode Arcade is used to perform mathematical calculations.	
17 AI is in the hypothetical stage.	

Find the output of the following program code. Also write its use in MakeCode Arcade. 1x8=8

- 18. remainder of 23/6
- 19. absolute of -931
- 20. max of 23 and -98
- 21. min of -36 and -102
- 22. square root of (100)
- 23. round (143.2)
- 24. pick random 0 to 15
- 25. sum of 23 and 14

Activity:

Note: Open the MS-Word file and write down all the practical question.

Take the snip of the programming workspace and game simulator.

Then paste it under each practical.

Save the file as a pdf and upload under the ASSIGNMENT created in MS-Teams

Design a block code programming using MakeCode Arcade for the following questions.

Practical 1: To check whether the entered age is eligible to cast the vote or not.

Practical 2: To check whether the two numbers entered are greater or smaller.