

Himalaya International School
Class- VIII
Subject - Mathematics
Practice Assignment - 3
Simple Interest and Compound Interest
Direct and Inverse Proportion
Introduction to Graphs
Data Handling
Probability

Q1 Prime numbers between 1 and 25 are written on slips. If a slip is drawn at random, what is the probability of getting:

- i) one digit number**
- ii) an even number**
- iii) an odd number**
- iv) number greater than 11**

Q2 From a well shuffled deck of 52 cards, one card is drawn at random. What is the probability that the card drawn is:

- i) a club**
- ii) a king**
- iii) 10 of hearts**

Q3 The marks obtained by 40 students of class X in an examination are given below:

9,7,19,7,8,14,17,21,20,3,3,22,12,6,17,10,14,9,5,19,14,0,24,4,4,8,13,15,20,19,8,23,5,23,8,24,10,17,11,17.

Prepare a frequency distribution table with equal class intervals starting from 0-5 (where 5 is not included) and answer the following questions:

- i) What is the lower limit of the first class interval?**
- ii) What is the upper limit of the last class interval?**
- iii) What is the class size of each class?**
- iv) Which class interval has the highest frequency?**
- v) What is the class mark of the third class interval?**

Q4 A survey was conducted to ask the students about their favourite after school activity and the information collected was tabulated as shown:

Activity	Visit Friends	Talk on Phone	Play Outdoor Games	Play Indoor Games	Watch TV	Read books
Number of students	175	150	125	75	125	50

Construct a bar graph to represent the above data. Study the bar graph and answer the following questions.

- i) What is the scale used along the vertical axis?**
- ii) How many students were surveyed in all?**
- iii) How many students preferred indoor games?**
- iv) Which activity is preferred by the least number of students?**
- v) How many students do not like to play any games after school?**
- vi) What per cent of the total number of students prefer to visit friends after school?**

Q5 Find the amount and compound interest on Rs. 10000 for 2 years at 20% per annum, if the interest is compounded half yearly.

Q6 At what rate of compound interest compounded annually, will Rs.7500 become Rs.9075 in 2 years?

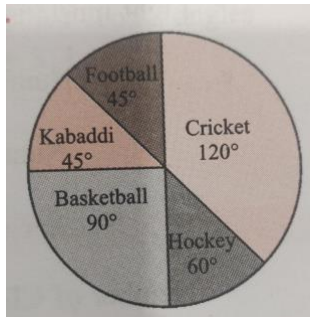
Q7 A private taxi charges a fare of Rs.1320 for a journey of 160km. How much would it travel for Rs.1031.25?

Q8 6 men can do a piece of work in 5 days. In how many days will 10 men do it?

Q9 If a sum of money is divided equally among 36 persons, they will get Rs.25 each. How much money would each get, if the number of persons is reduced by 6?

Q10 If x and y vary inversely as each other, and $x = 15$ and $y = 6$, then find y when $x = 10$.

Q11 The adjacent pie chart shows the sports liked by the boys of a locality. Read the pie chart and answer the following questions.



- i) Which sport is most popular?
- ii) Which two sports are equally popular?
- iii) If 80 boys were questioned, how many liked basketball?
- iv) What percentage of boys like kabaddi?

Q12 Draw a pie chart to represent the following data showing the percentages of people subscribing to different newspapers in a state.

Newspaper	TOI	HT	Pioneer	Malayala Manorama	The Hindu	Total
Subscribers (in %)	$\frac{425}{18}$	$\frac{175}{6}$	$\frac{125}{18}$	$\frac{175}{6}$	$\frac{100}{9}$	100

Q13 A bus travels 15km in 30 minutes. If the speed remains the same, how far will it travel in 6 hours?

Q14 The population of a town increased to 54000 in 2011 at a rate of 5% per annum.

- i) What was the population in 2009?
- ii) What will be its population in 2013?

Q15 A smartphone is bought at Rs.36000. Its value depreciates at the rate of 11.5% per annum. Find its value after one year.

Q16 Draw the graph for the following table of values, with suitable scales on the axes. Interest on deposits for a year:

Deposit in (in Rs)	5000	10000	15000	20000	25000
Simple Interest (in Rs)	325	650	975	1300	1625

- i) Does the graph pass through the origin?
- ii) Use the graph to find the interest on Rs.12500 for a year.

iii) To get an interest of Rs.1462.50 per year, how much money should be deposited?

Q17 Two coins are tossed simultaneously. Find the probability of getting:

i) two heads.

ii) one head

iii) no head

iv) at least one head

v) at most one head.

Q18 From a well shuffled deck of 52 cards, one card is drawn at random.

Find the probability of getting the following:

i) A black card

ii) A 2 of red cards

iii) A face card

(Hint: King, Queen, and Jack are called face cards.)

Q19 If 40 workers can do a job in 15 hours, how many workers working at the same rate will be required to do the same job in 8 hours?

Q20 At a camp there is sufficient food for 500 scouts for 21 days. If 250 more scouts join the camp, how long would the food last?