

Maharashtra Board Solutions Class 9-Maths

(Part 1): Chapter 7.4- Statistics

BOOK SOLUTIONS
CLASS 9
MATHS

CHAPTER 7.4
Statistics



Maharashtra Board Solutions→

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Maharashtra Board Solutions Class 9-Maths

(Part 1): Chapter 7.4- Statistics

Class 9: Maths Chapter 7.4 solutions. Complete Class 9 Maths Chapter 7.4 Notes.

Maharashtra Board Solutions Class 9-Maths (Part 1): Chapter 7.4- Statistics

Maharashtra Board 9th Maths Chapter 7.4, Class 9 Maths Chapter 7.4 solutions

Question 1.

Complete the following cumulative frequency table:

Class (Height in cm)	Frequency (No. of students)	Less than type frequency
150 – 153	05	05
153 – 156	07	$05 + \square = \square$
156 – 159	15	$\square + 15 = \square$
159 – 162	10	$\square + \square = 37$
162 – 165	05	$37 + 5 = 42$
165 – 168	03	$\square + \square = 45$
	Total (N) = 45	

Solution:

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Class (Height in cm)	Frequency (No. of students)	Less than type frequency
150 – 153	05	05
153 – 156	07	$05 + 07 = 12$
156 – 159	15	$12 + 15 = 27$
159 – 162	10	$27 + 10 = 37$
162 – 165	05	$37 + 5 = 42$
165 – 168	03	$42 + 03 = 45$
	Total (N) = 45	

Question 2.

Complete the following Cumulative Frequency Table:

Class (Monthly income in ₹)	Frequency (No. of individuals)	More than or equal to type cumulative frequency
1000 – 5000	45	
5000 – 10000	19	
10000 – 15000	16	
15000 – 20000	02	
20000 – 25000	05	
	Total (N) = 87	

Solution:

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Class (Monthly income in ₹)	Frequency (No. of individuals)	More than or equal to type cumulative frequency
1000 – 5000	45	87
5000 – 10000	19	$87 - 45 = 42$
10000 – 15000	16	$42 - 19 = 23$
15000 – 20000	02	$23 - 16 = 7$
20000 – 25000	05	$7 - 2 = 5$
	Total (N) = 87	

Question 3.

The data is given for 62 students in a certain class regarding their mathematics marks out of 100. Take the classes 0 – 10, 10 – 20,... and prepare frequency distribution

table and cumulative frequency table more than or equal to type.

55. 60, 81, 90, 45, 65, 45, 52, 30, 85, 20, 10,

75, 95, 09, 20, 25, 39, 45, 50, 78, 70, 46, 64,

42. 58. 31, 82, 27, 11, 78, 97, 07, 22, 27, 36,

35, 40, 75, 80, 47, 69, 48, 59, 32, 83, 23, 17,

77, 45, 05, 23, 37, 38, 35, 25, 46, 57, 68, 45.

47,49

From the prepared table, answer the following questions :

- How many students obtained marks 40 or above 40?
- How many students obtained marks 90 or above 90?
- How many students obtained marks 60 or above 60?

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iv. What is the cumulative frequency of equal to or more than type of the class 0 – 10?

Solution:

Class (Marks)	Tally marks	Frequency (No. of students)	More than or equal to type cumulative frequency
0 – 10		3	62
10 – 20		3	$62 - 3 = 59$
20 – 30		9	$59 - 3 = 56$
30 – 40		9	$56 - 9 = 47$
40 – 50	 	13	$47 - 9 = 38$
50 – 60		6	$38 - 13 = 25$
60 – 70		5	$25 - 6 = 19$
70 – 80		6	$19 - 5 = 14$
80 – 90		5	$14 - 6 = 8$
90 – 100		3	$8 - 5 = 3$
		Total (N) = 62	

i. 38 students obtained marks 40 or above 40.

ii. 3 students obtained marks 90 or above 90.

iii. 19 students obtained marks 60 or above 60.

iv. Cumulative frequency of equal to or more than type of the class 0 – 10 is 62.

Question 4.

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Using the data In example (3) above, prepare less than type cumulative frequency table and answer the following questions.

- i. How many students obtained less than 40 marks?
- ii. How many students obtained less than 10 marks?
- iii. How many students obtained less than 60 marks?
- iv. Find the cumulative frequency of the class 50 – 60.

Solution:

Class (Marks)	Frequency (No. of students)	Less than cumulative frequency
0 – 10	3	3
10 – 20	3	$3 + 3 = 6$
20 – 30	9	$6 + 9 = 15$
30 – 40	9	$15 + 9 = 24$
40 – 50	13	$24 + 13 = 37$
50 – 60	6	$37 + 6 = 43$
60 – 70	5	$43 + 5 = 48$
70 – 80	6	$48 + 6 = 54$
80 – 90	5	$54 + 5 = 59$
90 – 100	3	$59 + 3 = 62$
	Total (N) = 62	

- i. 24 students obtained less than 40 marks.
- ii. 3 students obtained less than 10 marks.
- iii. 43 students obtained less than 60 marks.
- iv. Cumulative frequency of the class 50 – 60 is 43.

Question 1.

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The following information is regarding marks in mathematics, obtained out of 40, scored by 50 students of 9th std. in the first unit test. (Textbook pg. no. 120)

Class interval	Frequency (f) (No.of students)
0 – 10	02
10 – 20	12
20 – 30	20
30 – 40	16
	Total (N) = 50

From the table, fill in the blanks in the following statements.

- i. For class interval 10 – 20 the lower class limit is _____ and upper class limit is _____
- ii. How many students obtained marks less than 10? 2
- iii. How many students obtained marks less than 20? $2 + \underline{\hspace{1cm}} = 14$
- iv. How many students obtained marks less than 30? _____ + _____ = 34
- v. How many students obtained marks less than 40? _____ + _____ = 50

Solution:

i. 10, 20

iii. 12

iv. $14 + 20$

v. $34 + 16$

Question 2.

A sports club has organised a table-tennis tournaments. The following table gives the distribution of players ages. Find the cumulative frequencies equal to or more than the lower class limit and complete the table (Textbook pg. no. 121)

Solution:

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Equal to lower limit or more than lower limit type of cumulative table.

Age (Year)	Tally marks	Frequency (No. of students)	Equal to lower limit or more than lower limit
10 – 12		09	50
12 – 14		23	$50 - 9 = 41$
14 – 16		13	$41 - 23 = 18$
15 – 16		05	$18 - 13 = 5$
		Total (N) = 50	



Maharashtra Board Solutions

Class 9 Maths

Part 1

- Chapter 1.1- Sets
- Chapter 1.2- Sets
- Chapter 1.3- Sets
- Chapter 1.4- Sets
- Chapter 2.1- Real Numbers
- Chapter 2.2- Real Numbers
- Chapter 2.3- Real Numbers
- Chapter 2.4- Real Numbers
- Chapter 2.5- Real Numbers
- Chapter 3.1- Polynomials
- Chapter 3.2- Polynomials
- Chapter 3.3- Polynomials
- Chapter 3.4- Polynomials
- Chapter 3.5- Polynomials
- Chapter 3.6- Polynomials
- Chapter 4.1- Ratio and Proportion
- Chapter 4.2- Ratio and Proportion
- Chapter 4.3- Ratio and Proportion
- Chapter 4.4- Ratio and Proportion
- Chapter 4.5- Ratio and Proportion
- Chapter 5.1- Linear Equations in Two Variables
- Chapter 5.2- Linear Equations in Two Variables
- Chapter 6.1- Financial Planning
- Chapter 6.2- Financial Planning
- Chapter 7.1- Statistics
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- Chapter 7.3- Statistics
- Chapter 7.4- Statistics

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- Chapter 7.5- Statistics

About About Maharashtra State Board (MSBSHSE)

The Maharashtra State Board of Secondary and Higher Secondary Education or MSBSHSE (Marathi: महाराष्ट्र राज्य माध्यमिक आणि उच्च माध्यमिक शिक्षण मंडळ), is an **autonomous and statutory body established in 1965**. The board was amended in the year 1977 under the provisions of the Maharashtra Act No. 41 of 1965.

The Maharashtra State Board of Secondary & Higher Secondary Education (MSBSHSE), Pune is an independent body of the Maharashtra Government. There are more than 1.4 million students that appear in the examination every year. The Maha State Board conducts the board examination twice a year. This board conducts the examination for SSC and HSC.

The Maharashtra government established the Maharashtra State Bureau of Textbook Production and Curriculum Research, also commonly referred to as Ebalbharati, in 1967 to take up the responsibility of providing quality textbooks to students from all classes studying under the Maharashtra State Board. MSBHSE prepares and updates the curriculum to provide holistic development for students. It is designed to tackle the difficulty in understanding the

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concepts with simple language with simple illustrations. Every year around 10 lakh students are enrolled in schools that are affiliated with the Maharashtra State Board.

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FAQs

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Who developed the Maharashtra State board books?

As of now, the MSCERT and Balbharti are responsible for the syllabus and textbooks of Classes 1 to 8, while Classes 9 and 10 are under the Maharashtra State Board of Secondary and Higher Secondary Education (MSBSHSE).

How many state boards are there in Maharashtra?

The Maharashtra State Board of Secondary & Higher Secondary Education, conducts the HSC and SSC Examinations in the state of Maharashtra through its nine Divisional Boards located at Pune, Mumbai, Aurangabad, Nasik, Kolhapur, Amravati, Latur, Nagpur and Ratnagiri.

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