A

Report

On

'Ten Days Technical Training Program on Core Java-8'

Organized

by

Training & Placement Cell

A.G. PATIL INSTITUTE OF TECHNOLOGY, SOLAPUR

(Date: 11th Sept - 22nd Sept. 2023)

Title: Report on 10 Days Technical Training Program on Core Java 8 for Final Year Electronics and Telecommunication Engineering Students

1.1 Introduction:

The 10-day technical training program on Core Java 8 for final year Electronics and Telecommunication Engineering students was conducted to enhance their programming skills and prepare them for the industry's demands. The program aimed to provide a comprehensive understanding of Java 8 features and applications in real-world scenarios.

1.2 Objectives:

1. To familiarize students with the fundamentals of Core Java 8.
2. To explore advanced concepts such as lambda expressions, streams, and functional interfaces.
3. To facilitate hands-on coding sessions for practical implementation.
4. To demonstrate the relevance of Java 8 in electronics and telecommunication applications.

1.3 Program Highlights:

1.3.1 Day 1-2: Introduction to Java Basics

    a. Overview of Java programming language.
    b. Setting up Java Development Environment (IDE).
    c. Basic syntax, data types, and control flow.
    d. Day 3-4: Object-Oriented Programming (OOP) in Java

1.3.2 Concepts of classes and objects.

    a. Inheritance, polymorphism, encapsulation, and abstraction.
    b. Exception handling.

1.3.3 Day 5-6: Introduction to Java 8 Features

    a. Functional programming paradigm.
    b. Introduction to lambda expressions.
    c. Default and static methods in interfaces.

1.3.4 Day 7-8: Advanced Java 8 Features

    a. Stream API for processing sequences of elements.
    b. Functional interfaces and their role in lambda expressions.
    c. Optional class for handling null values.

1.3.5 Day 9-10: Hands-on Projects and Real-world Applications

    a. Group projects applying Java 8 features.
    b. Discussions on the relevance of Java 8 in electronics and telecommunication projects.
    c. Q&A sessions and wrap-up.

1.4 Methodology:

1. Lectures: Theoretical sessions to introduce concepts.
2. Practical Sessions: Hands-on coding exercises to reinforce learning.
3. Group Projects: Collaborative coding projects to apply Java 8 features.
4. Case Studies: Real-world examples showcasing the application of Java 8 in electronics and telecommunication.

1.5 Outcomes:

1. Improved understanding of Core Java 8 concepts.
2. Enhanced programming skills in Java.
3. Ability to apply Java 8 features in real-world scenarios.
4. Strengthened foundation for future software development projects.

1.6 Feedback and Evaluation:

1. Regular feedback sessions were conducted to gauge students' understanding.
2. An assessment at the end of the program evaluated the participants' proficiency in Core Java 8.
3. Positive feedback was received regarding the hands-on approach and real-world applications.

1.7 Conclusion:

The 10-day technical training program on Core Java 8 provided final year Electronics and Telecommunication Engineering students with a solid foundation in advanced Java programming. The hands-on sessions and real-world applications enriched their learning experience and prepared them for the challenges of the industry.

The success of this program highlights the importance of incorporating practical training in the curriculum to bridge the gap between theoretical knowledge and practical application in the field of programming and software development.

Sharli Education Society's

ISO 9001:2015 Certified Institute

A. G. PATIL INSTITUTE OF TECHNOLOGY SOLAPUR

Approved by AICTE, New Delhi, Affiliated to Dr. Babasaheb Ambedkar Technological University, Recognized by Government of Maharashtra, DTE, Mumbai.

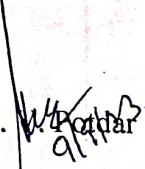DTE CODE : EN 6308

NAAC Accredited
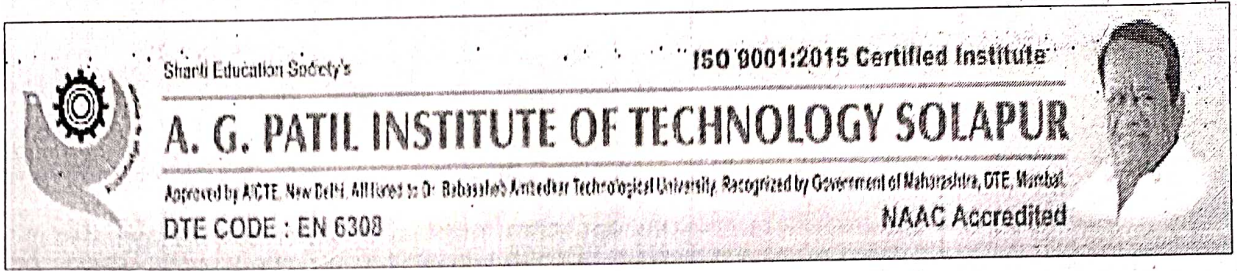
Date: 08.09.2023

TRAINING & PLACEMENT CELL

<u>NOTICE</u>

All the **Final Year students of Electronics & Telecommunication Department** are here by informed that, 'Ten Days Technical Training on Core Java-8' has been organized by the Training and Placement Cell as per the below mentioned schedule. Attendance for all the sessions is mandatary to all.

Sr. No.	Date	Time	Venue	Class
1.	11 Sept. 2023 to 22 Sept. 2023	10. 00 am to 05.00 pm	Electronics & Telecommunication Department	Final Year

Prof. N. P. Patil

(T.P.O.)

Dr. V. V. Potdar

(Principal)

Copy To:

1. **H. O. D.** (Dr. R. V. Darekar):

2. **T & P Coordinator** (Prof. S. J. Ligade):

Core Java 8 Programming TOC

Sr.	Day	Topic	Assignments	Tests
1	Day 1	Programming Paradigms		
		Object Oriented Programming concepts		
		Introduction to Java		
		Creating classes & objects	Assig1	
2	Day 2	Relationship between classes		Test1
3	Day 3	Interfaces, inner classes & Packages	Assig2	
4	Day 4	Reflection,		
		Exception Handling		
5	Day 5	Multithreading		
6	Day 6	Java 5 features: Annotations, Varargs, Enum,	Assig3	
		Java 5 features: Autoboxing, Generics		
7	Day 7	Collections framework	Assig4	
8	Day 8	IO Streams and files	Assig5	
9	Day 9	Java 8 features-functional interface, lambda expr.,		
		stream API, Date &Time API and Executors		
10	Day 10	JDBC - Introduction, Simple query, Parameterised query		
		JDBC - Callable statements, Metadata usage		Test2

सोलापुर, महाराष्ट्र, भारत
JV7R+6HP, सोरेगाँव, सोलापुर, महाराष्ट्र 413008, भारत
Lat 17.613286°
Long 75.891054°
11/09/23 10:37 AM GMT +05:30

Felicitation of Corporate Trainer Mr. Anil Donwade by Hon. Principal Dr. V. V. Potdar Sir

Principal Address during Inauguration

Training Invoice
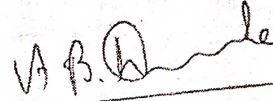
Invoice No: 05

Date: 09-Sep-2023

Client Name: **A. G. Patil Institute of Technology, Solapur**
Address: 18/ [2 A 2] 2 ,Pratap Nagar , Opp. SRP Camp Vijapur Road,
                 Solapur, Maharashtra, India.Pin code: 413008

Sr.	Training Particular	Total Days	Commercials	Total Amount
1.	Core Java 8 Training for BE E&TC students from 11-Sept-2023 to 22-Sept-2023, total 10days.	10	30000.00 for entire training	30000.00
Total Amount in words: Rupees Thirty thousand only				30000.00

Mr. Anil Donwade,
Freelance Software Trainer, Pune (India)

My account details are as under

A/c Name: Anil Baburao Donwade
A/c No.: 04510100017818
Bank Name: Bank of Baroda
Bank Branch: Shivajinagar, Pune
IFSC: BARB0SHIPOO
          [5th character is zero]
MICR Code: 411012011

CERTIFICATE

Of Participation

This is to certify that,

Akalwadi Gayatri Mallikarjun

the student of A. G. PATIL INSTITUTE OF TECHNOLOGY, SOLAPUR

has participated and successfully completed the 10 days full time course entitled "CORE JAVA PROGRAMMING" from 11 September 2023 to 24 September 2023

A. B. Donwade

ANIL DONWADE
Corporate Software Trainer, Pune

Date: 23.09.2023

TRAINING & PLACEMENT CELL
Feedback Report
of
'10 Days Technical Program on Core Java 8'

Communication Skill

8 responses
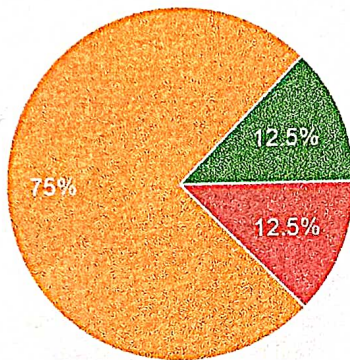
- ⬤ Excellent
- ⬤ Very Good
- ⬤ Good
- ⬤ Satisfactory

Presentation Skill

8 responses
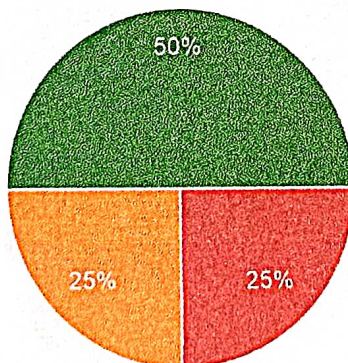
- ⬤ Excellent
- ⬤ Very Good
- ⬤ Good
- ⬤ Satisfactory

Problem Solving Skill
8 responses

- Excellent
- Very Good
- Good
- Satisfactory

37.5%
12.5%
50%
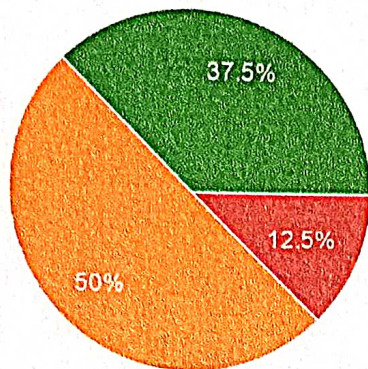
Subject Knowledge
8 responses

- Excellent
- Very Good
- Good
- Satisfactory

25%
37.5%
37.5%
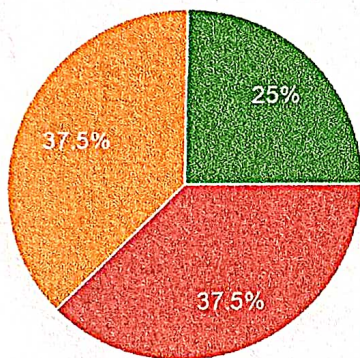
Topics Covered
8 responses

- Excellent
- Very Good
- Good
- Satisfactory

62.5%
12.5%
25%
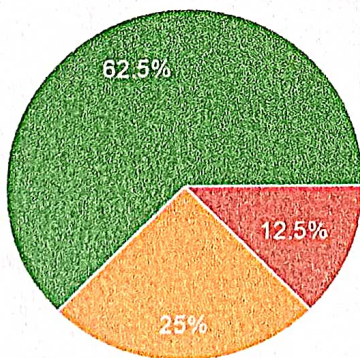
Do you think this training is beneficial?

8 responses

- Yes
- No

25%

75%
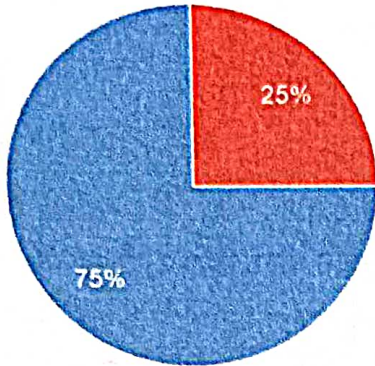
Content Delivered was good

8 responses

- Yes
- No

37.5%

62.5%
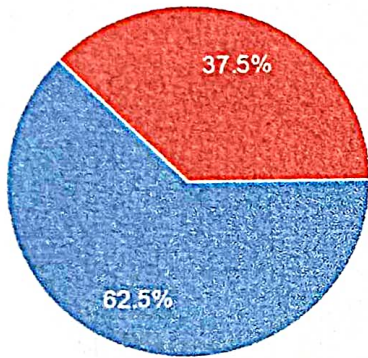
Java Fundamentals Test

1. Which of the following is an abstract data type in Java?

22 responses
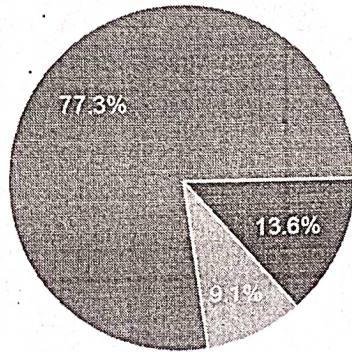
- a) int
- b) long
- c) double
- d) String

77.3%
13.6%
9.1%

2. Which of the following is considered as a template to create an object?

23 responses
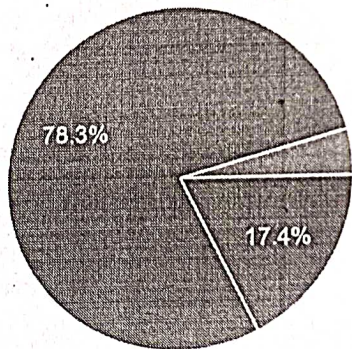
- a) reference variable
- b) class
- c) primitive data type
- d) none of the above

78.3%
17.4%

3. Saurabh has created a Java source code known as "MyWish.java" on Linux. Then which of the following is true statement?

22 responses
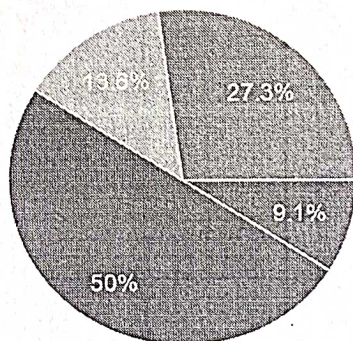
- a) MyWish.java can be compiled and run on only Linux
- b) MyWish.java can be compiled and run on not only Linux, but also on other OS platforms such as Windows
- c) MyWish.java must be compiled on Linux before running on other OS platforms
- d) All of the above

13.6%
27.3%
9.1%
50%

4. Which of the following is considered as one of the buzzwords of Java?
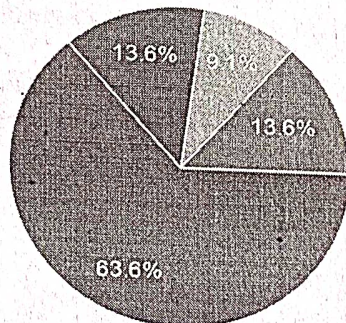
22 responses
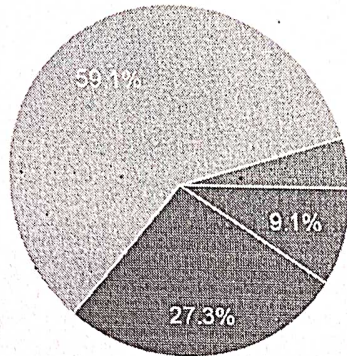
- a) class
- b) object
- c) robust
- d) final

59.1%
9.1%
27.3%

5. ASSERTION: Java is considered slower to run, but execution speed can be increased to fair extent REASON:JIT (Just in time) compiler makes ...for JVM hence no need to interpret the code again
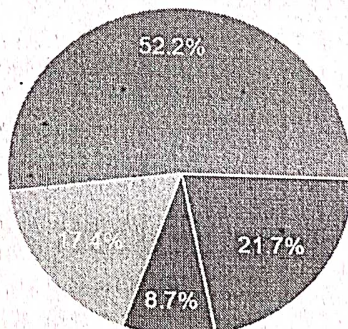
22 responses

13.6% 9.1%
13.6%
63.6%

- a) ASSERTION is correct statement and REASON justifies the ASSERTION statement
- b) ASSERTION is correct statement but REASON is incorrect statement
- c) ASSERTION is incorrect statement but REASON is incorrect statement
- d) Both ASSERTION and REASON are incorrect statements

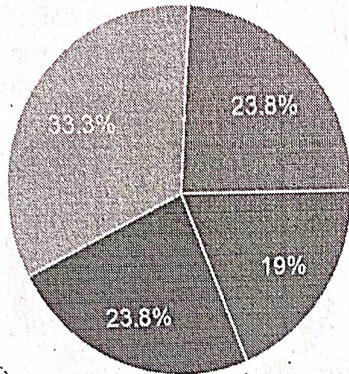## 6. Which of the following statement is true?

23 responses

52.2%
17.4%
8.7%
21.7%

- a) JVM stands for Java Visual Machine
- b) JDK stands for Java Digital kit
- c) JRE stands for Java Runtime expression
- d) None of the above
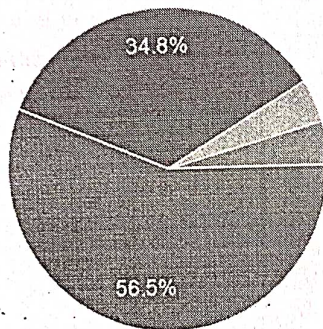
8. Which of the following is false statement?

21 responses

- a) JRE is OS specific
- b) JRE contains only JVM
- c) JRE contains class loader, byte code verifier & JVM
- d) All of the above

Pie chart values: 23.8%, 33.3%, 19%, 23.8%

9. Which of the following JDK tool is used to run Java program?

23 responses

- a) java
- b) javac
- c) javah
- d) jar

Pie chart values: 34.8%, 56.5%

10. Which of the following are Java identifier naming conventions?

23 responses
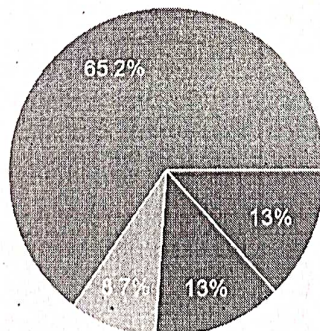
- a) All Abstract data type names i.e. Class name and interface name must have every word in title case
- b) All Variables and method names must have every word in title case, except first word, which is in lower case
- c) All constant names should have every word in upper case separated by underscore
- d) All of the above

Pie chart values: 65.2%, 13%, 13%, 8.7%

11. Which of the following are the Java rules for naming identifiers?
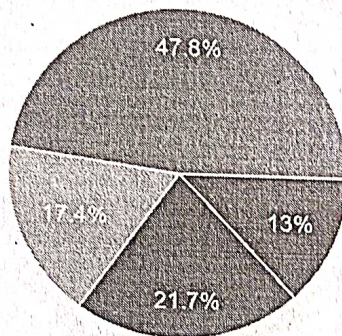23 responses
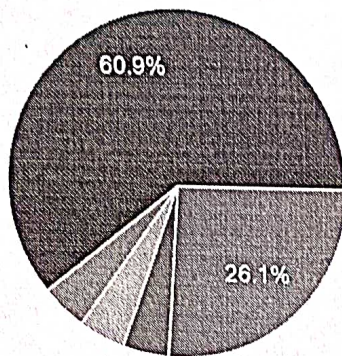
a) Every identifier must begin with an alphabet, and can contain digits, underscore and dollar symbol

b) An identifier should not contain any white space

c) In Java There is no formal length of an identifier

d) All of the above

60.9%
26.1%

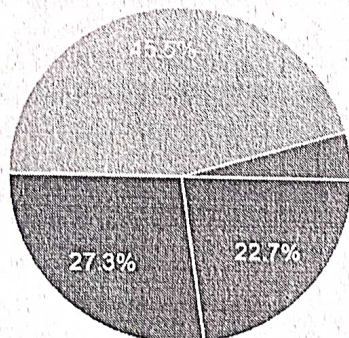## 12. Which of the following is not a set of Java keywords ?
23 responses

a) enum int short void

b) extends interface static volatile

c) float native switch

d) for repeat new synchronized

47.8%
17.4%
13%
21.7%

13. Which of the following object oriented programming advantage is concerned with maintenance of the code?
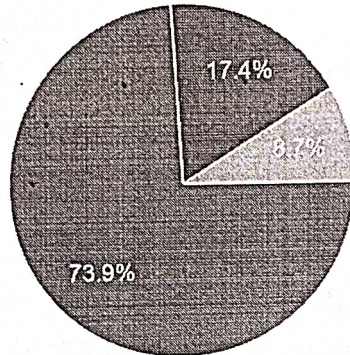22 responses

a) Realistic Modelling

b) Reuse of code

c) Resilience to changes

d) None of the above

27.3%
22.7%

14. Statement 1: An object is an instance of the class Statement 2: An object has state, behaviour & identity

23 responses

- a) Both Satement 1 and Satement 2 are correct
- b) Satement 1 is correct and Satement 2 incorrect
- c) Satement 1 is incorrect and Satement 2 correct
- d) Both Satement 1 and Satement 2 are incorrect

17.4%
8.7%
73.9%

15. Statement 1: An object oriented programming language is based on principles, such as abstraction. Statement 2: An object oriented progr...g language is Suitable for medium to large projects
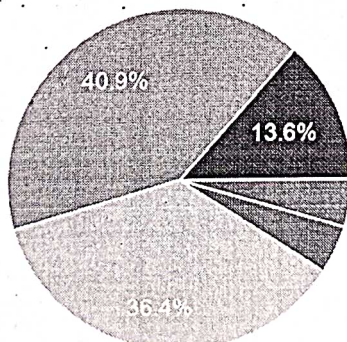
22 responses
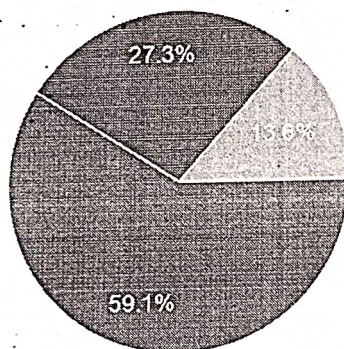
- a) Both Satement 1 and Satement 2 are correct
- b) Satement 1 is correct and Satement 2 incorrect
- c) Satement 1 is incorrect and Satement 2 correct
- d) Both Satement 1 and Satement 2 are incorrect

27.3%
13.6%
59.1%

16. What is the output of the following Java expression? z = a > b ? (a > c ? a : c) : 100;
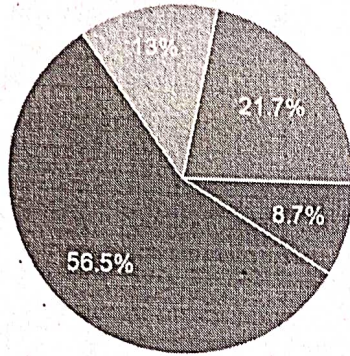
22 responses

- a) if a has greater then a will be displayed
- b) if c has greater then c will be displayed
- c) if b has greater then 100 will be displayed
- d) All of the above
- e) None of the above

40.9%
13.6%
36.4%

17. Consider the following Java statements: int a=10, b=20, c=30, d=40; z = a++ - ++b * c-- +
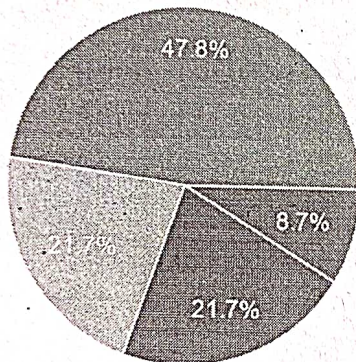++d; Finally what is the value of the z after evaluating this expression?

23 responses

- a) 661
- b) -579
- c) 60
- d) none of the above

18. What is the output of following Java program? for(int i=0; i<3; i++) for(int j=0; j<i;
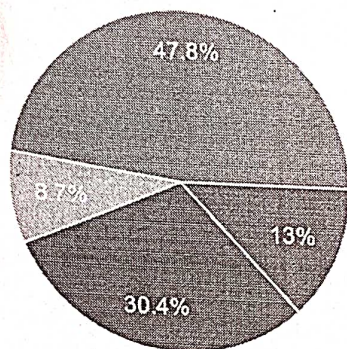j++) System.out.println((i*j) + " ");   (refer below image for the options)

23 responses

- a)
- b)
- c)
- d) none of the above

19. Consider the following Java statements: int[] array = {12, 24, 36, 48}; Which of the following can not correctly display all the content of the array?

23 responses

a) for (int i=0; i<4; i++) System.out. println(array[i]);

b) for (int i=0; i<array.length; i++) System.out.println(array[i]);

c) for (int i=0; i<=3; i++) System.out. println(array[i]);

d) for (int i=3; i>0; i--) System.out. println(array[i]);

47.8%

13%

30.4%

8.7%

20. Consider the following code skeleton: public class Student{ //methods .... //class fields String name; ·...} What is the default va... class field name, defined in the above code skeleton?

23 responses
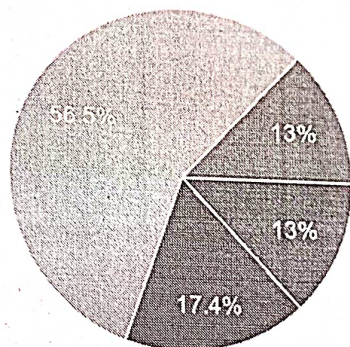
a) "" (the blank string)

b) 0

c) null

d) all of the above

56.5%

13%

13%

17.4%