Computer Science Illuminated 8th edition Dale Test Bank

SKU: 9781284275070-TEST-BANK

Computer Science Illuminated, Eighth Edition
Nell Dale and John Lewis
Chapter Quiz: Chapter 1

Multiple Choice

1. Which of the following is *not* one of the big ideas in computing discussed in Chapter 1?
A) Abstraction
B) The Internet
C) Visualization
D) Global impact
E) Creativity

Ans: C
Complexity: Moderate
Ahead: Computing as a Tool and a Discipline
Subject: Chapter 1
Title: Laying the Groundwork

2. Charles Babbage invented which of the following early computing devices?
A) Analytical engine
B) Memory drum
C) Transistor
D) Vacuum tube
E) Abacus

Ans: A
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. What was one of the beneficial effects of the introduction of high-level languages like FORTRAN and COBOL?
A) It was easier to work with numerical applications.
B) Computers could be used for business.
C) They enabled artificial intelligence.
D) They enabled the same program to run on more than one computer.

Ans: D
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Computer Science Illuminated, Eighth Edition
Nell Dale and John Lewis
Chapter Quiz: Chapter 1

Title: Laying the Groundwork

True/False

1. True or False? The abacus was the world's first electronic digital computer.

Ans: False
Complexity: Moderate
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

2. True or False? The transistor ushered in the second generation of commercial computers.

Ans: True
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. True or False? A computer that has a parallel architecture uses multiple central processing units.

Ans: True
Complexity: Moderate
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. True or False? A database management system is one of the types of software that helped fuel early adoption of personal computers.

Ans: True
Complexity: Easy
Ahead: The History of Computing

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Subject: Chapter 1
Title: Laying the Groundwork

5. True or False? An embedded system describes computing technology that has been enclosed in protective shielding for security reasons.

Ans: False
Complexity: Moderate
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Fill-in-the-Blank

1. _____ has been considered an astronomical calendar, a temple, and a predictor of lunar eclipses.

Ans: Stonehenge
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

2. FORTRAN and COBOL are two of the earliest _____ programming languages.

Ans: high-level
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. In the earliest electronic computers, programmers had to write machine language code expressed as _____ digits.

Ans: binary

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. The computer's operating system and language translators are generally known as _____.

Ans: systems software
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Essay

1. What is timesharing?

Ans: The process of many users, each at a terminal, using a single computer at the same time.
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

2. Describe the innermost layer of a computing system.

Ans: The innermost layer of a computing system deals with the way we represent information, including numbers, text, images, audio, and video on a computer.
Complexity: Difficult
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

3. What is a Turing machine?

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Ans: A Turing machine is an abstract mathematical model developed by Alan Turing that laid the foundation for theoretical computing.
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. What is a computer terminal?

Ans: A terminal is an input/output device with a keyboard and screen that allows the user to interact with a computer.
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

5. What is computer software?

Ans: A collection of programs that provide instructions that a computer executes.
Complexity: Easy
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

6. What is the focus of the application layer of a computer system?

Ans: The application layer focuses on the programs that allow users to solve real-world problems.
Complexity: Easy
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

7. What does Miller's law say?

Ans: Miller's law states that a human being can actively manage about seven, plus or minus two, pieces of information in short-term memory at one time.

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Complexity: Moderate
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

8. Name two major events that mark the beginning of the fifth software generation.

Ans: Growing popularity of object-oriented design and programming and the development of the World Wide Web (also the rise of Microsoft).
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Multiple Selection

1. Why were integrated circuits an improvement over circuit boards? Choose all that apply.
A) They were smaller.
B) They were faster.
C) They were more user-friendly.
D) They were cheaper.
E) They were more reliable.

Ans: A, B, D, E
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Computer Science Illuminated, Eighth Edition
Nell Dale and John Lewis
Practice Activities: Chapter 1

Import Settings:
Base Settings: Brownstone Default
Information Field: Complexity
Information Field: Ahead
Information Field: Subject
Information Field: Title
Highest Answer Letter: E
Multiple Keywords in Same Paragraph: No
NAS ISBN13: 9781284275124, add to Ahead, Title tags

Chapter: Chapter 01 - Practice Activities

Multiple Choice

1. Which of the following best describes the concept of abstraction?
A) Exposing difficulty
B) Hiding quantity
C) Exposing distance
D) Hiding details
E) Exposing representation
Ans: D
Complexity: Easy
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

2. Which of the following best describes a Turing machine?
A) A device for integrating many chips on one circuit board
B) An abstract mathematical model of computing
C) The first electronic digital computer
D) The first successful memory storage device
E) The first computer capable of network communication
Ans: B
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. Who is credited with being the first programmer?
A) Leibniz
B) Pascal
C) Babbage
D) Lovelace
E) Hollerith

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Ans: D
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. What machine is considered by many to be the first all-programmable electronic digital computer?
A) Analytical Engine
B) Colossus
C) ENIAC
D) UNIVAC I
E) Z1
Ans: B
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

5. What is the purpose of a compiler?
A) Translate machine language into assembly language
B) Translate high-level language into machine language
C) Translate FORTRAN into COBOL
D) Translate machine language into FORTRAN
E) Translate application programs into system programs
Ans: B
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

True/False

1. True or False? Large-scale integration—the technology that allows installation of an entire microcomputer on a single chip—is no longer widely used.
Ans: False
Complexity: Moderate
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

2. True or False? An assembler translates assembly-language programs into machine code.
Ans: True
Complexity: Easy
Ahead: The History of Computing

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Subject: Chapter 1
Title: Laying the Groundwork

3. True or False? High-level languages helped programmers get closer to the machine language understood by the computer.
Ans: False
Complexity: Moderate
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. True or False? Object-oriented design is currently the dominant approach for large programming projects.
Ans: True
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Short Answer

1. Miller's Law states that a human being can actively manage about _____ pieces of information in short-term memory at one time.
Ans: 7, plus or minus 2
Alternate ans: seven, plus or minus two
Complexity: Easy
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

2. The eighteenth-century device that used cards with holes punched in them to dictate the design of woven cloth was known as _____.
Ans: Jacquard's loom
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. Loaders and linkers are part of the group of applications that developed into the first _____.
Ans: systems software
Complexity: Easy

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. Early computer scientists were quick to adopt transistors as a replacement for _____.
Ans: vacuum tubes
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

5. _____ created a buffer between the programmer and the machine hardware by the end of the first generation of computer software.
Ans: Assembly language
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Essay

1. List four of the seven big ideas of computing discussed in Chapter 1.
Ans: Any four of creativity, abstraction, data and information, algorithms, programming, the Internet, and global impact
Complexity: Easy
Ahead: Computing as a Tool and a Discipline
Subject: Chapter 1
Title: Laying the Groundwork

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

Import Settings:
Base Settings: Brownstone Default
Information Field: Complexity
Information Field: Ahead
Information Field: Subject
Information Field: Title
Highest Answer Letter: E
Multiple Keywords in Same Paragraph: No
NAS ISBN13: 9781284275124, add to Ahead, Title tags

Chapter: Chapter 01 - Quiz

Multiple Choice

1. Which of the following is *not* one of the big ideas in computing discussed in Chapter 1?
A) Abstraction
B) The Internet
C) Visualization
D) Global impact
E) Creativity
Ans: C
Complexity: Moderate
Ahead: Computing as a Tool and a Discipline
Subject: Chapter 1
Title: Laying the Groundwork

2. Charles Babbage invented which of the following early computing devices?
A) Analytical engine
B) Memory drum
C) Transistor
D) Vacuum tube
E) Abacus
Ans: A
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. What was one of the beneficial effects of the introduction of high-level languages like FORTRAN and COBOL?
A) It was easier to work with numerical applications.
B) Computers could be used for business.
C) They enabled artificial intelligence.
D) They enabled the same program to run on more than one computer.

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Ans: D
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

True/False

1. True or False? The abacus was the world's first electronic digital computer.
Ans: False
Complexity: Moderate
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

2. True or False? The transistor ushered in the second generation of commercial computers.
Ans: True
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. True or False? A computer that has a parallel architecture uses multiple central processing units.
Ans: True
Complexity: Moderate
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. True or False? A database management system is one of the types of software that helped fuel early adoption of personal computers.
Ans: True
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

5. True or False? An embedded system describes computing technology that has been enclosed in protective shielding for security reasons.
Ans: False
Complexity: Moderate
Ahead: The History of Computing

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Subject: Chapter 1
Title: Laying the Groundwork

Short Answer

1. _____ has been considered an astronomical calendar, a temple, and a predictor of lunar eclipses.
Ans: Stonehenge
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

2. FORTRAN and COBOL are two of the earliest _____ programming languages.
Ans: high-level
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

3. In the earliest electronic computers, programmers had to write machine language code expressed as _____ digits.
Ans: binary
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. The computer's operating system and language translators are generally known as _____.
Ans: systems software
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Essay

1. What is timesharing?
Ans: The process of many users, each at a terminal, using a single computer at the same time.
Complexity: Easy

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

2. Describe the innermost layer of a computing system.
Ans: The innermost layer of a computing system deals with the way we represent information, including numbers, text, images, audio, and video on a computer.
Complexity: Difficult
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

3. What is a Turing machine?
Ans: A Turing machine is an abstract mathematical model developed by Alan Turing that laid the foundation for theoretical computing.
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

4. What is a computer terminal?
Ans: A terminal is an input/output device with a keyboard and screen that allows the user to interact with a computer.
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

5. What is computer software?
Ans: A collection of programs that provide instructions that a computer executes.
Complexity: Easy
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

6. What is the focus of the application layer of a computer system?
Ans: The application layer focuses on the programs that allow users to solve real-world problems.
Complexity: Easy
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank

7. What does Miller's law say?
Ans: Miller's law states that a human being can actively manage about seven, plus or minus two, pieces of information in short-term memory at one time.
Complexity: Moderate
Ahead: Computing Systems
Subject: Chapter 1
Title: Laying the Groundwork

8. Name two major events that mark the beginning of the fifth software generation.
Ans: Growing popularity of object-oriented design and programming and the development of the World Wide Web (also the rise of Microsoft).
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Multiple Response

1. Why were integrated circuits an improvement over circuit boards? Choose all that apply.
A) They were smaller.
B) They were faster.
C) They were more user-friendly.
D) They were cheaper.
E) They were more reliable.
Ans: A, B, D, E
Complexity: Easy
Ahead: The History of Computing
Subject: Chapter 1
Title: Laying the Groundwork

Copyright © 2025 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Computer Science Illuminated 8th edition Dale Test Bank