

AP Computer Science Principles

Final Exam Review

Name: _____

* Review previous review sheets from throughout the year. You can find these on my website msklug.weebly.com

Unit 1 – The Internet

Lesson 1: Personal Innovations

Lesson 2: Sending Binary Messages

Lesson 3: Sending Binary Messages with the Internet Simulator

Lesson 4: Number Systems

Lesson 5: Binary Numbers

Lesson 6: Sending Numbers

Lesson 7: Encoding and Sending Formatted Text

Lesson 8: The Internet is for Everyone

Lesson 9: The Need for Addressing

Lesson 10: Routers and Redundancy

Lesson 11: Packets and Making a Reliable Internet

Lesson 12: The Need for DNS

Lesson 13: HTTP and Abstraction on the Internet

Lesson 14: Practice PT – The Internet and Society

Unit 2 - Digital Information

Lesson 1: Bytes and File Sizes

Lesson 2: Text Compression

Lesson 3: Encoding B&W Images

Lesson 4: Encoding Color Images

Lesson 5: Lossy Compression and File Formats

Unit 3 – Algorithms and Programming

Lesson 1: The Need for Programming Languages

Lesson 2: The Need for Algorithms

Lesson 3: Creativity in Algorithms

Lesson 4: Using Simple Commands

Lesson 5: Creating Functions

Lesson 6: Functions and Top-Down Design

Lesson 7: APIs Using Functions with Parameters

Lesson 8: Creating Functions with Parameters

Lesson 9: Looping and Random Numbers

Lesson 10: Practice PT – Design a Digital Scene

Unit 4 – Big Data and Privacy

Lesson 1: What is Big Data?

Lesson 2: Finding Trends with Visualizations

Lesson 3: Check Your Assumptions

Lesson 5: Identifying People With Data

Lesson 6: The Cost of Free

Lesson 7: Simple Encryption

Lesson 8: Encryption with Keys and Passwords

Lesson 9: Public Key Cryptography

Lesson 10: Rapid Research – Cybercrime

Unit 5 – Building Apps

Lesson 1: Introduction to Event-Driven Programming

Lesson 2: Multi-Screen Apps

Lesson 3: Building an App: Multi-Screen App

Lesson 4: Controlling Memory with Variables

Lesson 5: Building an App: Clicker Game

Lesson 6: User Input and Strings

Lesson 7: If-statements unplugged

Lesson 8: Boolean Expressions and “if” Statements

Lesson 9: “if-else-if” and Conditional Logic

Lesson 10: Building an App: Color Sleuth

Lesson 11: While Loops

Lesson 12: Loops and Simulations

Lesson 13: Introduction to Arrays

Lesson 14: Building an App: Image Scroller

Lesson 15: Processing Arrays

Lesson 16: Functions with Return Values

Lesson 17: Building an App: Canvas Painter