

# Parallel Computing

## Practice Exam

Difficulty: easy

---

**\*\*Parallel Computing Practice Exam - Easy\*\***

**\*\*Section 1: Multiple Choice (1 point each)\*\***

**\*\*Instructions:\*\* Choose the best answer for each multiple-choice question.**

**1. Which of the following is NOT a primary advantage of parallel computing?**

- a) Increased processing speed for large tasks
- b) Reduced memory usage per process
- c) Ability to handle complex problems beyond the capacity of single processors
- d) Faster completion of tasks that can be broken into smaller, independent subtasks

**Answer:** \_\_\_\_\_

**\*\*Section 2: Short Answer (2 points)\*\***

**\*\*Instructions:\*\* Briefly answer the following question.**

**2. Explain the concept of "embarrassingly parallel" problems in the context of parallel computing. Give a simple example.**

**Answer:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**\*\*Answer Key:\*\***

**1. b) Reduced memory usage per process (While parallel computing can \*sometimes\* lead to better memory management through techniques like distributed memory, it's not a primary advantage.)**

**2. Embarrassingly parallel problems are tasks that can be easily divided into completely independent subproblems, with minimal need for communication or coordination between the subproblems. A simple example is rendering an image: each pixel can be processed independently by a different processor without any need for interaction with other pixels' processing.**

---

