Quiz #4

Due Apr 24 at 11:59pm **Points** 10 **Questions** 10
Available Apr 22 at 12:01am - Apr 24 at 11:59pm 3 days **Time Limit** 60 Minutes

Instructions

Welcome to the Week #4 quiz -- good luck!

This quiz was locked Apr 24 at 11:59pm.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	2 minutes	10 out of 10

Score for this quiz: **10** out of 10
Submitted Apr 24 at 9:52am
This attempt took 2 minutes.

Question 1 — 1 / 1 pts

The two types of coherence that caches want to see in order to deliver maximum performance are:

- Systemic and Thermal
- Spatial and Thermal
- Systemic and Temporal
- Spatial and Temporal

Correct!

Question 2

1 / 1 pts

It is impossible to use malloc( ) to create an array that you are *sure* starts on a cache line boundary.

- ○ True
- ◉ False

Correct!

Question 3

1 / 1 pts

SSE SIMD allows your program to:

- ○ Perform 16 floating point multiplies in one instruction
- ○ Perform 2 floating point multiplies in one instruction
- ○ Perform 8 floating point multiplies in one instruction
- ◉ Perform 4 floating point multiplies in one instruction

Correct!

Question 4

1 / 1 pts

A SIMD unit exists:

- ○ One for each cache line
- ◉ One for each core
- ○ One for the entire chip

Correct!

Question 5

1 / 1 pts

There is one universal standard way to ask for prefetching among Visual Studio, gcc/g++, and the Intel compiler.

- True
- False

Correct!

Question 6

1 / 1 pts

Function Decomposition is done primarily for:

- Reducing heat dissipation
- Reducing power consumption
- Programming convenience

Correct!

- Speed acceleration

Question 7

1 / 1 pts

What does the first barrier signify in our Functional Decomposition model?

- Each quantity is done copying its next state to the global state

Correct!

- (selected) Each quantity is done computing what it will do next
- The Watcher thread can go ahead and print the state and prepare for the next loop

Question 8

1 / 1 pts

What does the second barrier signify in our Functional Decomposition model?

Correct!

- (selected) Each quantity is done copying its next state to the global state
- Each quantity is done computing what it will do next
- The Watcher thread can go ahead and print the state and prepare for the next loop

Question 9

1 / 1 pts

What does the third barrier signify in our Functional Decomposition model?

Correct!

- (selected) The Watcher thread can go ahead and print the state and prepare for the next loop
- Each quantity is done computing what it will do next

Each quantity is done copying its next state to the global state

Question 10

1 / 1 pts

What is the difference between OpenMP *sections* and OpenMP *tasks*?

Sections are dynamic, tasks are static

Correct!

Sections are static, tasks are dynamic

They are two words for the same thing

Tasks are still in beta test and so shouldn't be used on a serious problem

Quiz Score: **10** out of 10