

Quiz #8

Due May 22 at 11:59pm**Points** 10**Questions** 10**Available** May 20 at 12:01am - May 22 at 11:59pm 3 days**Time Limit** 60 Minutes

Instructions

Welcome to Quiz #8!

Attempt History

	Attempt	Time	Score
LATEST	<u>Attempt 1</u>	5 minutes	10 out of 10

⚠ Correct answers will be available on May 23 at 12:01am.

Score for this quiz: **10** out of 10

Submitted May 20 at 12:44pm

This attempt took 5 minutes.



Question 1

1 / 1 pts

In OpenCL, what is a float16?

- ☐ A floating point number aligned on a 16-byte boundary.
- ☐ A 16-bit floating point number.
- ☒ A 16-element SIMD floating point array
- ☐ A 16-byte floating point number.

Question 2

1 / 1 pts

An OpenCL **Device** is composed of:

- ☐ Platforms
- ☒ Compute Units
- ☐ Command Queues
- ☐ Processing Elements

Question 3

1 / 1 pts

An OpenCL **Compute Unit** is composed of:

- ☐ Streaming Multiprocessors
- ☐ Platforms
- ☒ Processing Elements
- ☐ Devices



Question 4

1 / 1 pts

What does the Yellow Robot + Grippers picture model, respectively?

- ☐ Processing Element + Compute Units
- ☐ Processing Element + Devices

☒ Compute Unit + Processing Elements

☐ Compute Unit + Devices

Question 5

1 / 1 pts

Why does OpenCL use a **Command Queue**?

Note: there are two correct answers here, each worth half a point.

☐ So that you don't need to know what each command does.

☒ So that you can issue OpenCL commands as fast as you can.

☐ Because this is how the hardware works.

☒ So that OpenCL can gobble OpenCL commands as fast as it can.



Question 6

1 / 1 pts

In OpenCL, what does **"The Host"** refer to?

☐ A server elsewhere on the Internet

☐ The networking hardware

☒ The hardware on which you are running your main C/C++ program.

☐ The OpenCL hardware.

Question 7**1 / 1 pts**

In OpenCL, what does **"The Device"** refer to:

- ☐ The hardware on which you are running your main C/C++ program
- ☒ The OpenCL hardware
- ☐ The networking hardware
- ☐ A server elsewhere on the Internet

Question 8**1 / 1 pts**

Where does the OpenCL compiler live (ignoring SPIR-V for now)?

- ☒ In the OpenCL driver
- ☐ Elsewhere on the Internet
- ☐ On the device on which you are running your main program
- ☐ On the OpenCL device

**Question 9****1 / 1 pts**

What is the relationship between **Global Data Set Size, Work Group Size, and Number of Work Groups**?

- ☐ Global Data Set Size = (Number of Work Groups) ^ 2

☐

Number of Work Groups = (Work Group Size) * (Global Data Set Size)

☒

Global Data Set Size = (Work Group Size) * (Number of Work Groups)

☐

Work Group Size = (Global Data Set Size) * (Number of Work Groups)

Question 10

1 / 1 pts

What does the OpenCL function `get_global_id(0)` do?

☐

Tells you where you are in the local dataset

☐

Tells you how many work-groups you have

☐

Tells you what work-group you are in

☒

Tells you where you are in the overall 1D dataset



Quiz Score: **10** out of 10