

Discovery Series #16: x86-64 floating-point instructions (tracing)

Started: Nov 4 at 2:47pm

Quiz Instructions

****Reminder of the academic honor pledge that you signed.**

Please note the following instructions:

- 1.) If the question is multiple choice, choose the best answer.
- 2.) For fill in the blank, write the answer in the space provided.



Question 1 1 pts

section .data

var1 dd 10.0

var2 dd 4.0

:

:

movss xmm1, [var1]

movss xmm2, [var2]

vdivss xmm3, xmm1, xmm2

What will the single-precision scalar portion of xmm3 contain after execution (fixed point)?

2.5 AnimoSpace Support



Question 2 1 pts

section .data

var1 dd 10.0

var2 dd 4.0

:

:

movss xmm1, [var1]

movss xmm2, [var2]

vaddss xmm3, xmm1, xmm2

What will the single-precision scalar portion of xmm3 contain after execution (fixed point)?

14.0



Question 3 1 pts

section .data

var1 dd 7.5

:

:

movss xmm1, [var1]

cvtss2si eax, xmm1

What will register eax contain after execution?



8



7



6



None of the choices



Question 4 1 pts

section .data

var1 dd 6.5

:

:

movss xmm1, [var1]

cvtss2si eax, xmm1

What will register eax contain after execution?



8



6



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7



None of the choices



Question 5 1 pts

section .data

var1 dd 10.0

var2 dd 4.0

:

:

movss xmm1, [var1]

movss xmm2, [var2]

vmulss xmm3, xmm1, xmm2

What will the single-precision scalar portion of xmm3 contain after execution (fixed point)?



Question 6 1 pts

section .data

var1 dd 1.5, 2.5, 3.5, 4.5, 5.5

:

:

`movss xmm1, [var1+4]`

What will the single-precision scalar portion of xmm1 contain after execution?

☐

5.5

☒

2.5

☐

None of the choices

☐

1.5



Question 7 1 pts

section .data

var1 dq 1.5, 2.5, 3.5, 4.5, 5.5, 6.5, 7.5, 8.5

:

:

`movsd xmm1, [var1+8]`

What will the double-precision scalar portion of xmm1 contain after execution?

☐

None of the choices

☐

1.5

☐

8.5



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2.5



Question 8 1 pts

section .data

var1 dd 4

:

:

movss xmm1, [var1]

What will the single-precision scalar portion of xmm1 contain after execution?



2



4



5



None of the choices



Question 9 1 pts

x86-64 floating-point register uses packed 128-bit register.



This statement is False



This statement is True



Question 10 1 pts

Which instructions are NOT used to transfer single-precision data in memory *var1* to register XMM0?

☐

MOV xmm0, [var1]

☐

None of the choices

☒

MOVD xmm0, [var1]

☐

MOVSS xmm0, [var1]

Quiz saved at 2:57pm

Submit Quiz