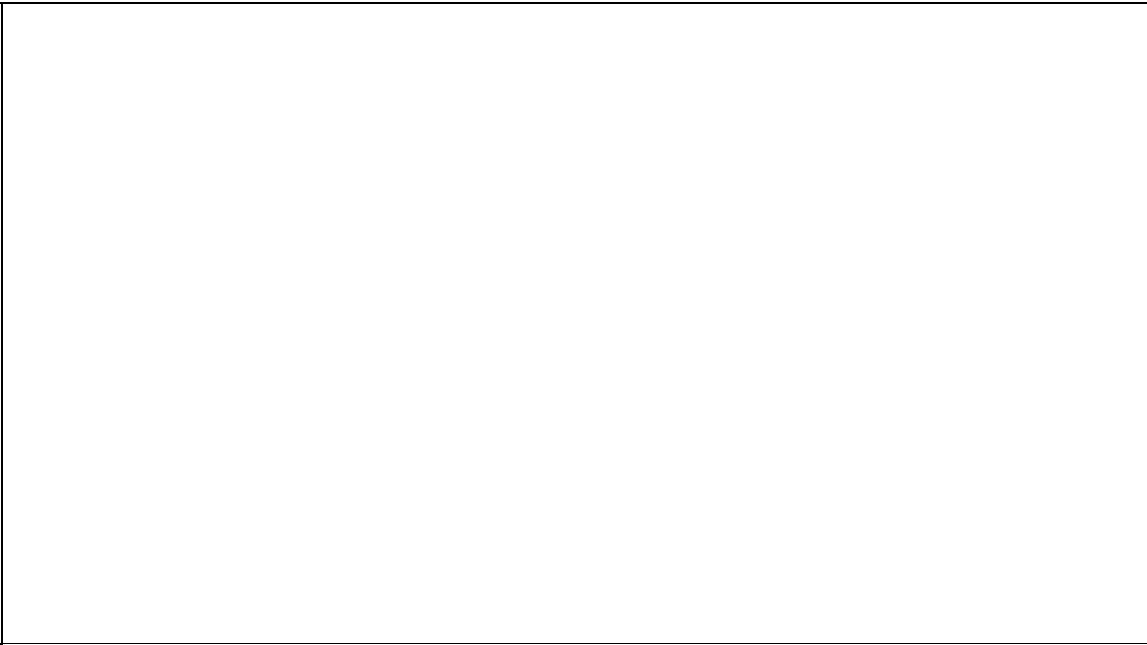


Help

THE FULL LC-3 INSTRUCTION SET



1:06 / 1:06	1.0x			
-------------	------	--	--	--

Download transcript .txt

Please refer to Appendix A, Figure A.2 of [Introduction to Computer Systems](#) for a list of LC-3 instructions. If the link doesn't work please copy and paste the following URL [http://highered.mheducation.com/sites/0072467509/student\\_view0/appendices\\_a\\_b\\_c\\_d\\_e.html](http://highered.mheducation.com/sites/0072467509/student_view0/appendices_a_b_c_d_e.html)

Show Discussion

New Post

1. CHECK YOUR UNDERSTANDING (1/1 point)

Which of the following best describes the operation of the following instruction sequence?

0001000000100001  
0110111000000000  
0000101111111101

- ☐ Repeatedly add a list of values until the result is 0.
- ☐ Repeatedly add a list of values until the result is not 0.
- ☒ Check a list of numbers for the first occurrence of the value 0. ✓
- ☐ Check a list of numbers for the first occurrence of a non-zero value.

**EXPLANATION**

The first instruction increments R0. The second instruction loads the contents of the memory location pointed to by R0 into R7. The third instruction checks if the value is non-zero. If so, it branches back to the first instruction. The loop repeats until the value loaded from memory is zero, at which point R0 points to the memory location that holds that value.

[Check](#)[Hide Answer](#)[Show Discussion](#)[New Post](#)

EdX offers interactive online classes and MOOCs from the world's best universities. Online courses from MITx, HarvardX, BerkeleyX, UTX and many other universities. Topics include biology, business, chemistry, computer science, economics, finance, electronics, engineering, food and nutrition, history, humanities, law, literature, math, medicine, music, philosophy, physics, science, statistics and more. EdX is a non-profit online initiative created by founding partners Harvard and MIT.

© 2015 edX Inc.

EdX, Open edX, and the edX and Open edX logos are registered trademarks or trademarks of edX Inc.

[Terms of Service and Honor Code](#)

[Privacy Policy \(Revised 10/22/2014\)](#)

POWERED BY  
**OPEN**edX

**About edX**

[About](#)

[News](#)

[Contact](#)

[FAQ](#)

[edX Blog](#)

[Donate to edX](#)

[Jobs at edX](#)

**Follow Us**

[Facebook](#)

[Twitter](#)

[LinkedIn](#)

[Google+](#)

[Tumblr](#)

[Meetup](#)

[Reddit](#)

[Youtube](#)