WE1.2

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Video explanation of solution is provided below the problem.

Two's Complement Representation

6/6 points (ungraded)

1) What is the decimal equivalent of the 6-bit binary two's complement number 001000? 8 ✔

2) What is the decimal equivalent of the 6-bit binary two's complement number 101100? -20 ✔

3) Using a 6-bit two's complement representation, what is the range of integers that can be represented with a single 6-bit quantity? Provide your response in decimal notation.

Range of integers: min -32 ✔ max 31 ✔

4) What is the result of the following subtraction problem in 6-bit two's complement representation?

15 - 18 = 0b
111101 ✔

27 - 6 = 0b
010101 ✔

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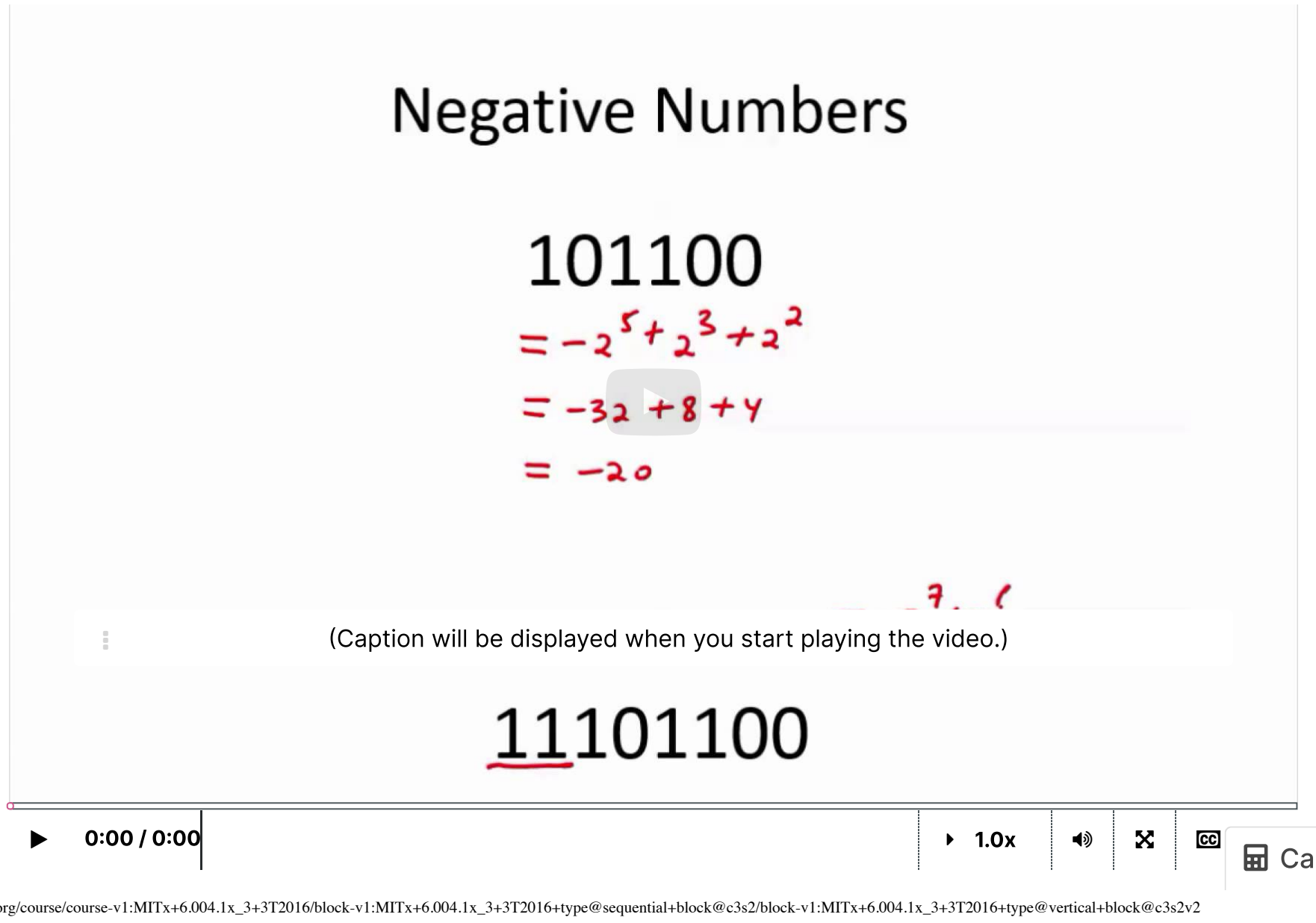
Two's Complement Representation



(Caption will be displayed when you start playing the video.)

0:00 / 0:00 1.0x

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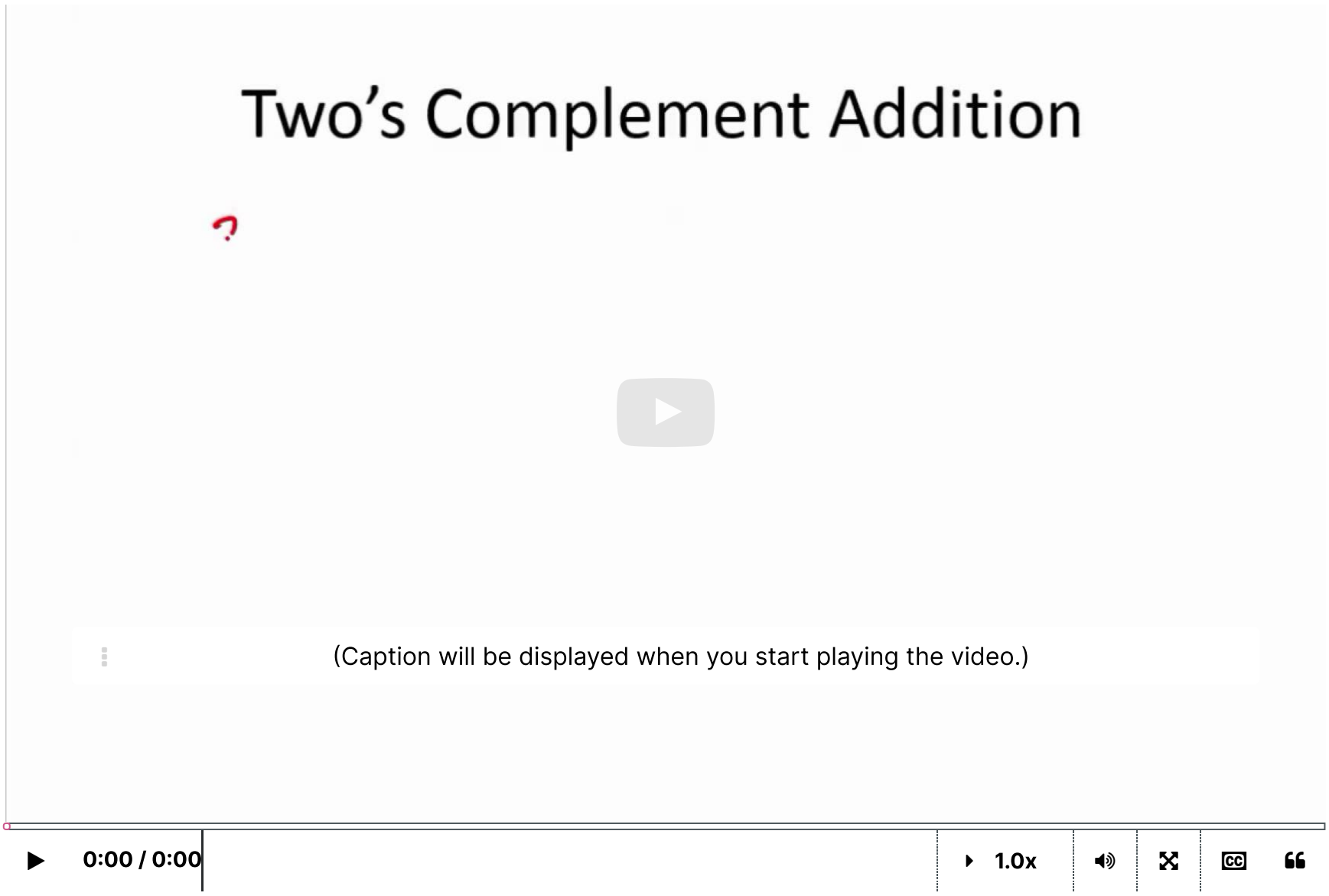
Two's Complement Addition



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Topic: 1. Basics of Information / WE1.2

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- Am new — Hi am John and am new here. I dont knw anything about computer science but i want to knw more about computer science that's wh... — 1
- V_in in second question — ***[STAFF]*** I couldn't really understand the question. Help plz (The output voltage of an inverter is measured to be 0.9V in the ste... — 2
- Binary function — ***[STAFF]***strong text1. How many binary functions of two (binary) inputs are there? (You can write your answer in terms of expo... — 2
- I dont understand how they add 1 — Around the 58 second mark to the 1:03 mark i get they flip the numbers for positive 18 to get -18. Which is 010010 becomes 101101 b... — 3
- A retired journalist and a student in computing — Hi, I am Tony Ngan, a retiree living in the Hong Kong Special Administrative Region, China. I used to be a journalist. — 2
- HW#1 question 1 — Hi, I'm stuck on the first question in the homework. Please can someone explain what to actually do? Any help greatly appreciated. T... — 5
- [STAFF] — Good morning, My name is Victor. Please, let me know where i can find Jade in order to complete each assignment. Regards, Victor — 2
- Any prerequisites to this course? — Are there any prerequisites to this course, would anyone know? I am a second year computer programming student and am fascinate... —

Calculator

Sea o' quids board Hey everyone, my name is Rene from Mexico and I'm here to learn stuff for fun. This course looks very interesting. See all of you in cl...		2
greetings from Costa Rica Mauricio Chinchilla from Costa Rica. Hei¡		2
Prerequisites (x2) I am a junior high school student from the United States, and have only completed basic physics (eg nothing at the calculus level yet,...		4

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