

AP Computer Science Principles
Ticket Out the Door
Set 1: Binary Numbers

Name _____ Period _____

Skill 1.01 Exercise 1

Following this link to the virtual Flippy-Do.

<https://hpluska.github.io/APCompSciPrinciples/labs/2021/DigitalInformation/BinaryNumbers/FlippyDo/>

Use the flippy do to figure out the decimal equivalent of the following binary numbers: 1110, 110011, 10001

Use the Flippy-Do to figure out the binary equivalent of the following decimal numbers: 5, 7, 13

Skill 1.02 Exercise 1

Without the aid of the Flippy-Do, convert each of the following decimal numbers to binary, 11, 25, 53

Skill 1.03 Exercise 1

Indicate whether the binary number is even or odd

100010000001

101010101010

100000000000

101010101111

111111111000

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Skill 1.03 Exercise 2

Indicate the largest number that could be represented by each of the following bits.
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(a) 5

(b) 4

(c) 6

Skill 1.03 Exercise 3

Without using the Flippy-Do, what are each of the following in decimal?

(a) 111

(b) 1111

(c) 11111

(d) 111111
