





< bitmask0

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bitmask2 >



You are working on problem set: Homework 2 (Pause)

Language/Type:

C C <u>bitwise operators</u> <u>bit</u>

manipulation

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Assume mine is an unsigned int being used as bit vector. For each listed task, show how to express it in C.

test if mine has either of two lowest bits on

- a. \bigcirc (mine & \emptyset x3) == \emptyset x3
- b. mine l= Øxff
- d. \odot (mine & \emptyset x3) != \emptyset

(order shuffled)

test if mine has both of two lowest bits on

- a. \bigcirc (mine & \emptyset x3) == \emptyset x3
- b. \bigcirc (mine & \emptyset x3) != \emptyset
- c. \bigcirc mine &= $\emptyset x555555555$
- d. mine |= Øxff

(order shuffled)

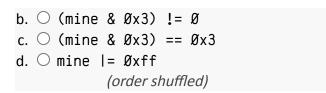
set lowest 8 bits of mine

- a. \bigcirc (mine & \emptyset x3) != \emptyset
- b. \bigcirc (mine & $\emptyset x3$) == $\emptyset x3$
- c. o mine I= Øxff
- d. \bigcirc mine &= \emptyset x55555555

(order shuffled)

clear every other bit in mine

a. • mine &= Øx55555555







✓ You passed 4 of 4 tests.

question #1: test if mine has either of two lowest bits on

X

your answer: (mine & $\emptyset x3$) != \emptyset

result: opass

question #2: test if mine has both of two lowest bits on

your answer: (mine & $\emptyset x3$) == $\emptyset x3$

result: opass

question #3: set lowest 8 bits of mine

your answer: mine $I = \emptyset xff$

result: opass

question #4: clear every other bit in mine

your answer: mine &= Øx55555555

result: opass



Need help?

Stuck on an exercise? Contact your TA or instructor

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