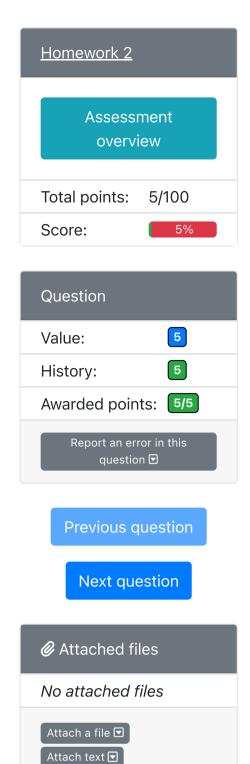
9/3/22, 11:19 PM

HW2.1 - CS 61C | PrairieLearn HW2.1. Bitwise Operations C provides bitwise commands for AND(&), OR(|), XOR(^), and NOT(~). Let x be a single-bit input (i.e. can be either 0 or 1). Fill in the following blanks with either 0, 1, x, or \sim x. Putting x means that x is the output (no change), and \sim x means that the opposite of x is the output. Tip: Review AND, OR, XOR logic. What is the corresponding output for different input combinations using these logic? x&1 =3 Q1.1: x&0 =3 Q1.2: x | 1 =Q1.3: 3 $\mathbf{x} \mid 0 =$ 3 Q1.4: Q1.5: $x^1 =$ Q1.6: $x^0 =$ 3 Based on your responses above, which operation would be useful for: Q2.1: turning bits ON (i.e. setting bits to 1)? ○ (a) & (b) ○ (c) ^ Q2.2: turning bits OFF (i.e. setting bits to 0)? \bigcirc (a) &(b) ○ (c) ^

Q2.3: flipping bits (i.e. changing bits from 0 to 1 or from 1 to 0)?

Save only

Additional attempts available with new variants ?



Save & Grade 20 attempts left

○ (a) &

(b)

○ (c) ^