

1. [11 points] The following table gives values of functions  $A(t)$ ,  $B(t)$ ,  $B^{-1}(t)$ , and  $A(B(t))$  at various values of  $t$ . Assume  $B(t)$  is invertible.

$t$	-2	0	2	3	5
$A(t)$	0	3	-2	0	2
$B(t)$		3	0	-2	5
$B^{-1}(t)$		2	-2	0	5
$A(B(t))$	-2		3	0	2

- a. [3 points] Could  $A(t)$  be invertible? Circle your answer and give a **brief explanation**.

YES

NO

- b. [3 points] Write the correct values in the three blank spaces in the table.

- c. [2 points] Calculate:

•  $A(B^{-1}(0)) =$

•  $B(A(5)) =$

- d. [3 points] Find all solutions to the following equation that can be determined using only the information given in the table:

$$B(A(t)) = 3.$$