

1. [13 points] A formula for the function $K(x)$ and a table of values for the **odd** function $A(x)$ are shown below. **The domain of $A(x)$ is all real numbers.**

$$K(x) = x^2 - 6$$

x	1	5	10
$A(x)$	-2	-6	-10

- a. [5 points] If possible, evaluate each of the following expressions. If the value does not exist, write DNE; if there is not enough information to determine it, write NEI.
No explanations needed; work shown may earn partial credit.

• If $D(x) = A(x) + K(x)$, then $D(10) =$ _____

• $A(K(1)) =$ _____

• $K^{-1}(-7) =$ _____

• $A(0) =$ _____

- b. [8 points] For each of the following functions, decide if it is *odd*, *even*, or *neither*. Circle one answer for each part. *Show all work for full credit.*

(i) $K(x)$

ODD

EVEN

NEITHER

(ii) $K(x) + A(x)$

ODD

EVEN

NEITHER

(iii) $A(K(x))$

ODD

EVEN

NEITHER

(iv) $A(x) \cdot K(x)$

ODD

EVEN

NEITHER