10. [9 points] Let $P(t)$ be a town's population, in thousands of people, t years after the beginning of 2000. Some values of $P'(t)$, the **derivative** of $P(t)$, are given in the table below.

t	-8	-3	0	3	6	8	12	15
$P'(t)$	2	2	0	0	3	0	-6	-2

Assume that between each pair of consecutive values of t given in the table, $P'(t)$ is either **always increasing**, **always decreasing**, or **always constant**.

a. [1 point] Let $y = P'(t)$. What are the units of y?

Answer: = thousands of people per year

For each of the following, circle **all** correct answers.

b. [2 points] At which of the following time(s) is the town's population increasing?

$t = -6$ $t = 2$ $t = 7$ $t = 13$ NONE OF THESE

c. [2 points] On which of the following interval(s) is the town's population constant?

$(-7, -5)$ $(1, 2)$ $(7, 10)$ NONE OF THESE

d. [2 points] On which of the following interval(s) is $P(t)$ linear?

$(-7, -5)$ $(1, 2)$ $(7, 10)$ NONE OF THESE

e. [2 points] At which of the following time(s) is the town's population the largest?

$t = 3$ $t = 6$ $t = 8$ $t = 15$