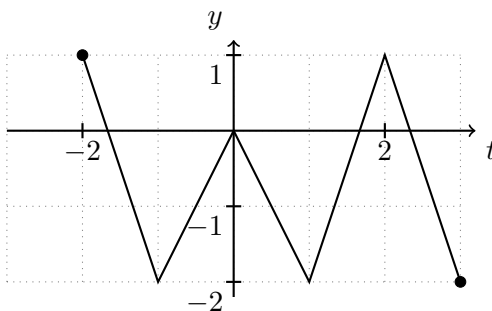


3. [10 points] Parts **a.** and **b.** of this problem are **unrelated** to each other.

a. [6 points] Part of the graph of a periodic function $y = N(t)$ is graphed below. The maximum and minimum value of $N(t)$ are shown.



Circle all of the following numbers that could be the period of $N(t)$? Unclear answers will be marked incorrect.

2 4 5 6

Write the midline of $N(t)$ in the following blank: $y = -0.5$

Write the amplitude of $N(t)$ in the following blank: 1.5

b. [4 points] Suppose Fifi LeBlanc uses $F(E)$ feet of wrapping paper to package E chicken eggs. For the following practical interpretations, select the expression corresponding to the interpretation from the choices below and write your choice in the blank. You may find the following information useful: There are 12 inches in a foot, and there are 12 eggs in a dozen.

(i) The amount of wrapping paper, in **inches**, that Fifi uses to wrap d chicken eggs is

 $12F(d)$.

(ii) Fifi uses 12 times as much wrapping paper to wrap ostrich eggs as she does to wrap

chicken eggs. Fifi uses $12F(12d)$ feet of wrapping paper to package d

dozen ostrich eggs.

Possible answers:

$\frac{1}{12}F(12d)$ $12F(d)$ $12F\left(\frac{d}{12}\right)$ $F\left(\frac{d}{12}\right)$

$F(12d)$ $\frac{1}{12}F(d)$ $12F(12d)$ $\frac{1}{12}F\left(\frac{d}{12}\right)$