

YOUR NAME: \_\_\_\_\_

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. The height of the winning pole vault in the early years of the modern Olympic Games can be modeled as a function of time by the formula

$$H(t) = 0.05t + 3.3.$$

$t$  is the number of years since 1900 and  $H$  is the winning height in meters.

- (a) Calculate  $H(4)$  and explain in practical terms what your answer means. (Your explanation should be **very** short (a sentence) and **very** precise; otherwise credit will be subtracted.)

- (b) By how much did the height of the winning pole vault increase from 1908 to 1912? (You must show **all** your work and provide **brief but precise** explanations; otherwise credit will be subtracted.)