

WARM UP!

Ashley's grandfather decides to start a fund for her college education. He makes an initial contribution of \$3000 and each month deposits an additional \$500. After one month he will have contributed \$3500.

- a. Write a function for the n th term of the sequence.

$$f(n) = 3000 + (n-1)500$$

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$$f(n) = 3000 + 500n - 500$$

- b. How much money will Ashley's grandfather have contributed after 24 months?

$$f(n) = 2500 + 500n$$

$$f(24) = 3000 + (24-1)500$$

$$= 3000 + 12000$$

$$= 15000$$

$$= 14,500$$

$$f(24) = 2500 + 500(24)$$

$$= 14,500$$