



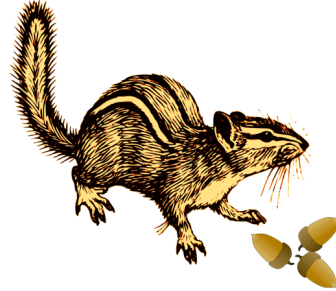
Problem of the Week

Problem B

Joey Prepares for Winter

Joey the chipmunk will soon be hibernating, so he's gathering acorns, his food supply for the long winter months.

Joey has four acorns remaining from the previous day, and has gathered acorns over the last few hours as shown in the following table.



Hour	0	1	2	3	4	5
Total Number of Acorns	4	20	36	52	68	84

- (a) Is the total number of acorns a linear growing pattern? Verify your answer by creating a graph.
- (b) Suppose Joey continues collecting acorns at this same rate.
- How many acorns would Joey have collected by the end of Hour 12?
 - How many hours would it take him to collect at least 330 acorns?
 - Write an algebraic expression to represent the total number of acorns Joey would have after collecting for n hours.