Penny pincher handout

Stack pennies on the calendar tiles to help answer the questions below.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1							
Week 2							
Week 3							
Week 4							

Activity Questions

1) Pair up with a partner. Stack your pennies the "penny pinching" way for weeks 1 and 2 (rows 1 and 2). Ask your partner to stack his pennies five at a time (without doubling them) during weeks 3 and 4 (rows 3 and 4). Who runs out of pennies first? How many pennies would be used at the end of two weeks for each partner?
2) How many pennies will you have saved if on day one of week one, you save 1 penny, doubling your savings each day from Sunday through Saturday?
3) How long will it take you (in days) to save $10.00 using the same strategy?
4) How much money would be saved if the increment of your weekly savings was changed from $0.01 to $0.05?
5) How much money would be saved if the same penny pinching habit lasted for three weeks?

EXTENSION **Introduction to functions**

The Greek symbol Sigma (Σ) indicates that a quantity should be summed. For the calculation

(1+2+3+4+5+6+7+8) an expression can be written where the numbers from 1 through 8 are indicated by the variable n. Using the symbol, the expression would be . The result is 36.

Write an expression for your weekly penny savings calculation using Σ. Identify the Sigma function on your scientific calculator. Verify your results using the function button. ( )