

Save Some, Spend Some

ACTIVITY

You need: a computer spreadsheet



Daniel and Sarah each want to buy a DVD player that costs \$240. Daniel starts with \$100 in his savings account. Each week he saves \$8 out of his pocket money. Sarah starts with \$124 in her savings account. Her weekly pocket money is \$10, but she spends \$4 each week on a magazine. She saves the rest.

1. a. In the spreadsheet, the formula $=B2+8$ calculates Daniel's savings after week 1. Write the formula that calculates Daniel's savings after week 2 and explain how it works.
 - b. Write the formula that goes in cell C3 to calculate Sarah's savings after week 1. Explain how the formula works.

	n	B	C
1	Week	Daniel's Savings (\$)	Sarah's Savings (\$)
2	0	100	124
3	1	108	
4	2	116	
5	3	124	
6			
7			
8			
9			
10			
11			
12			
13			

2. a. Make a spreadsheet like the one above and complete it up to 10 weeks.
 - b. How much do Daniel and Sarah each save after 10 weeks?
 - c. When will each person have enough to buy the DVD player?
3. After week 7, Sarah decides to stop buying her weekly magazine and save all of her pocket money.
 - a. Write the formula that goes in cell C10 to calculate her savings accurately.
 - b. Change your spreadsheet and work out when Sarah will be able to buy the DVD.
4. Daniel also decides to save more so that he can buy the DVD sooner.
 - a. Alter Daniel's spreadsheet formulae so that his savings are as shown in the spreadsheet opposite.
 - b. When will Daniel be able to buy the DVD?

	n	B	C
1	Week	Daniel's Savings (\$)	Sarah's Savings (\$)
2	0	100	124
3	1	108	
4	2	116	
5	3	124	
6	4	135	
7	5	146	
8	6	157	
9	7	168	
10	8		
11	9		
12	10		
13			