Exercises

Exercise 1: Is the reference to cell D6 in the formula =D6*2 a relative or an absolute reference?

- **An absolute reference**

Imagine that you are keeping track of the sales for tickets at the Olympic games. A number of different sports are located in different venues. Each venue has a number of seats available. Your spreadsheet will keep track of the number of tickets available and the number actually sold.

Exercise 2: Given the following spreadsheet, what formula would you use in cell D6 to calculate the number of tickets remaining?

	A	B	C	D
1		Ticket Sales		
2				
3	Price	$10.00		
4				
5	Event	Tickets Available	Tickets Sold	Remaining
6	Cycling	4000	2000	2000
7	Weightlifting	2000	750	1250
8	Triathlon	1000	100	900
9	Football	3000	3000	0
10	Badminton	5000	4500	500
11		15000	10350	4650

=B6 − C6

Exercises

Exercise 3: What formula would you use in cell E8 to calculate the money made from ticket sales?

	A	B	C	D	E
1			Ticket Sales		
2					
3	Price	$10.00			
4					
5	Event	Tickets Available	Tickets Sold	Remaining	Sales
6	Cycling	4000	2000	2000	$20,000.00
7	Weightlifting	2000	750	1250	$7,500.00
8	Triathlon	1000	100	900	$1,000.00
9	Football	3000	3000	0	$30,000.00
10	Badminton	5000	4500	500	$45,000.00

=C8 * B3

Exercise 4: What formula would you use in cell B11 to calculate the total number of tickets available?

	A	B	C	D	E
1			Ticket Sales		
2					
3	Price	$10.00			
4					
5	Event	Tickets Available	Tickets Sold	Remaining	Sales
6	Cycling	4000	2000	2000	$20,000.00
7	Weightlifting	2000	750	1250	$7,500.00
8	Triathlon	1000	100	900	$1,000.00
9	Football	3000	3000	0	$30,000.00
10	Badminton	5000	4500	500	$45,000.00
11		15000	10350	4650	$103,500.00

=B6 + B7 + B8 + B9 + B10

Boolean Logic

- **Boolean value**
  - True or False
  - 2-valued logic

- **Compare two different values**
  - =
  - >
  - <
  - >=
  - <=

- **Example. Are the following true or false?**
  - =(3 = 4)   False
  - =(4 < 6)   True
  - =(MAX(5, 6) = 5)   False
  - =(SUM(1,2,3) = 6) True

Boolean Functions

- ## AND(a, b)
  - True only when a and b are both true

- ## OR(a, b)
  - True if either a is true or b is true

- ## NOT(a)
  - True only when a is false

- ## Are the following formulae TRUE or FALSE?
  - =AND(3 = 4, 2 = 2)   False
  - =OR(7 < 5, 3 > 3)   False
  - =NOT(3 = 2)   True
  - =OR(AND(2 = 3, 4 > 3), NOT(2 = 3))   True