MULTIPLICATION PRINCIPLE

The multiplication principle is the method that uses multiplication to work out the total number of outcomes possible when calculating probabilities.

(Possibilities in set one) x (Possibilities in set 2) x (Possibilities in set 3)
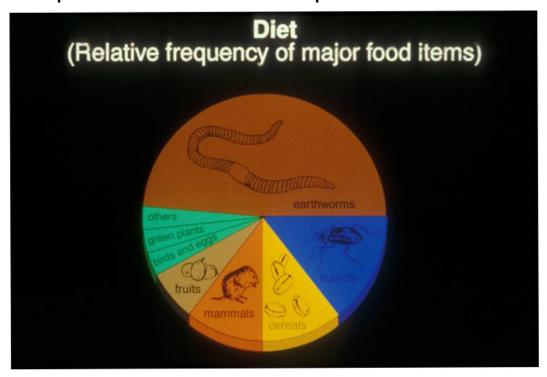
Total possible outcomes = n1 x n2 x n3.

Dave the badger can choose from this menu:

Main course:	Pudding:	Drinks:
• worms,	nuts	river water
• birds' eggs	blackberries	pond water
• rabbit	grain	
• vole		

Choosing one main course, a pudding and a drink, how many combinations are possible?

Total possible outcomes = 4 x 3 x 2 = 24 possible outcomes.

Diet
(Relative frequency of major food items)

Have a look at the food preferences of badgers. Make up more options for badgers to choose, and work out other multiplication options.