

Two Way Tables Extension

- 1) A factory makes three sizes of bookcase. The sizes are small, medium and large, and the bookcase can be made from pine, yew or oak. They record their orders from one week. 3 small yew, 8 medium yew and 2 large yew bookcases were ordered. 23 pine bookcases were ordered, of which 7 were small. 20 small bookcases were ordered in total and 14 large. There was a final order for 16 medium oak bookcases, which took the oak total up to 34.
- 2) A restaurant records the orders of a two course meal-deal of 72 diners. It consists of a main course and a dessert. 25 had Gateau, 12 of which previously had Pizza. Of the 12 diners that had Salad, 2 followed that with Fruit and 2 followed it with Ice Cream. 20 people had Pasta with Ice Cream and 4 people had Pizza with Fruit. Only one person followed the Pasta with a portion of Fruit. How many people had Salad with Gateau?
- 3) A group of 17 boys and 15 girls were asked at what time they went to lunch yesterday. 12 boys went to lunch before 12:30. 13 students, of which 8 were girls, went to lunch from 12:30 to 1:00. 3 girls went to lunch after 1:00. How many students in total ate lunch after 1:00?
- 4) Joe asked 50 people which flavour ice cream they preferred out of vanilla, strawberry and chocolate. Here is some information about the results. 13 out of the 25 females said they preferred vanilla. 5 males said strawberry was their favourite. 14 out of the 24 people who said they liked chocolate best were male. Joe picks a person at random. What is the probability their favourite ice cream was vanilla?
- 5) 300 pupils were asked which their favourite subject was out of Maths, English and Science. There were equal amounts of boys and girls. Of the 124 that said Maths was their favourite, 80 were boys. 60 pupils said English was their favourite. 72 girls said Science was their favourite.
 - a. If I picked a student at random, what is the probability that the student was a girl whose favourite subject was English?
 - b. Write this as a fraction in its simplest form.
- 6) A theatre sells 4685 tickets to a concert. 3215 of the tickets are sold to adults. $\frac{3}{5}$ of the adults who have tickets are female. 60% of the children attending the concert are male.
The theatre wants to survey 300 of the people who attend the concert to ask for their opinions on it. They use a stratified sampling technique. Calculate the number of adult males that would be surveyed in the sample.