Worksheet H: Connections

Connect each question to its answer.

A woman has 8 different trees.

5 of these trees are to be planted in a line.

How many possible arrangements are there?

8 × 7 × 6 × 5 = 1680

A 1st prize, 2nd prize, 3rd prize and 4th prize are to be awarded to 4 different members of a group of 8 people. In how many ways can this be done?

5 × 4 × 3 × 3 = 180

Five empty chairs are arranged in a row.

3 boys are to be seated in this row.

How many possible seating arrangements are there?

6 × 5 × 4 × 3 = 360

How many different 4-digit numbers can be formed using 4 of the 6 digits

 3, 4, 5, 6, 7, 9

if no digit is used more than once?

8 × 7 × 6 × 5 × 4 = 6720

5 × 4 × 3 = 60

How many different 4-digit even numbers can be formed using 4 of the 6 digits

 1, 2, 3, 4, 5, 6

if no digit is used more than once?