

National 4 Homework Exercise 14 Statistics

1. Complete all calculations below **without a calculator**.

Show all working!

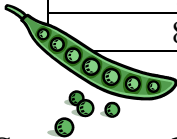
(a) $354 - 2.734$

(b) $13.7 \div 40$

(c) $\frac{2}{3}$ of 480g [4]

2. The number of peas counted in each of the 100 pods is shown in this frequency table.

Peas in a pod	Frequency	Peas in a pod \times Frequency
3	5	15
4	10	40
5	28	140
6	36	
7	12	
8	9	
Total=100		Total =



Copy to complete the table above **and** calculate the mean number of peas in a pod.

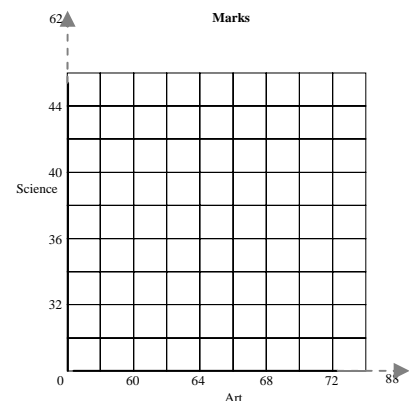
[3]

3. Ten students sat an Art and a Science exam.

Here are the marks for six of the students:

Art	30	64	68	76	84	88	73	66	80	58
Science	58	61	54	44	36	34	44	52	42	62

- Neatly draw a set of axis with the Art scale along to 88 and Science scale up to 62.
- Plot the marks on your scattergraph..
- Draw a best fitting straight line for this scattergraph.
- Karen scored 70 marks in her Art exam. Use your line to estimate the number of marks she scored in the Science exam.
- Brian scored 52 in his Science exam but was absent for his Art exam. His teacher estimated his Art mark to be 80. Is this a reasonable estimate?



[10]

4. 24 girls attend Alan's party. Each girl is wearing a dress and the colours of the dresses are:-

4 pink

6 red

12 black

2 blue

- a) What is the probability that the next girl Alan dances with will have on a red dress?

- b) What is the probability that the next girl Alan dances with will **not** have on a black dress? [3]

