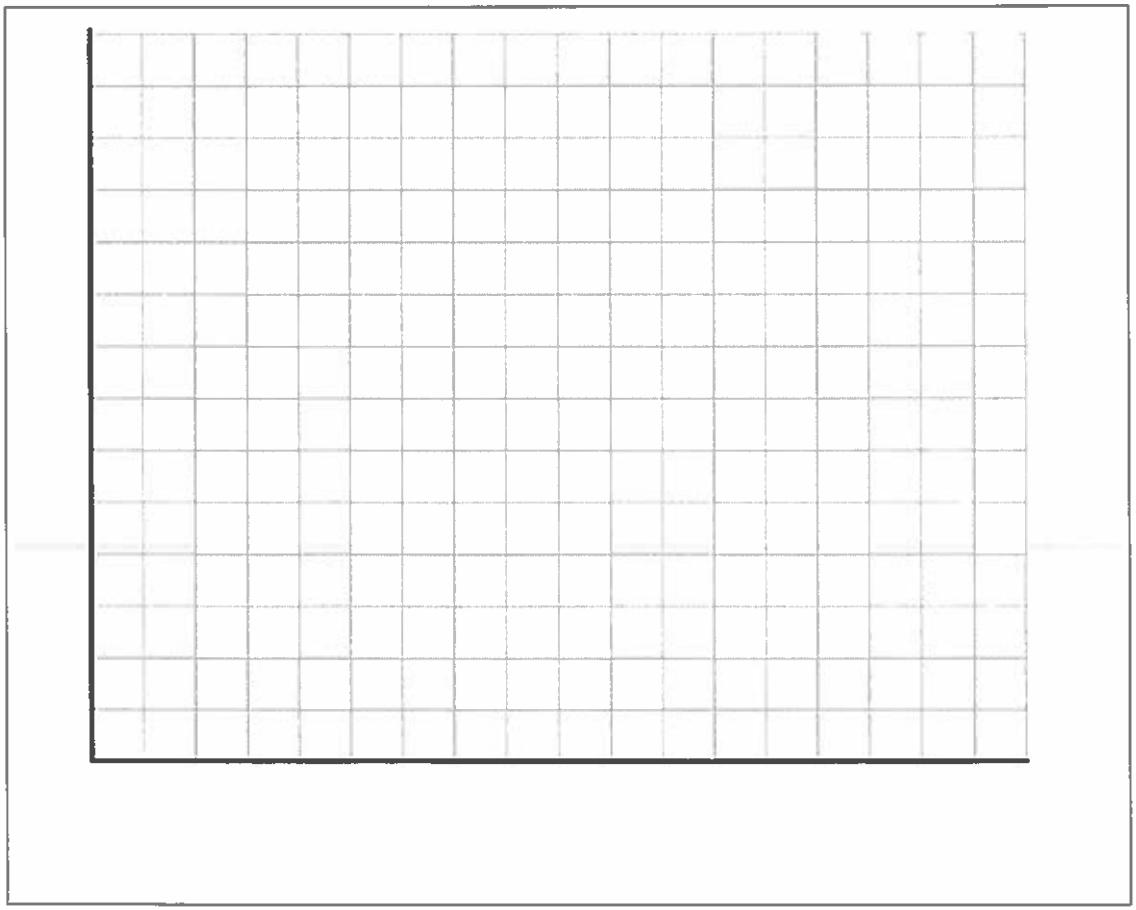
5 Mr and Mrs O'Hara are trying to decide how much allowance to give their 10 year-old daughter. They collected the following information from other parents:

Name	Age	Amount £ per week
Michael	8	8·50
Megan	7	7·50
Thomas	11	9·50
Jessica	6	6·00
Chris	9	9·50
Rhianne	10	11·00
Adil	11	10·50
Szymon	7	6·00

(a) Draw a scatter graph to show this data. **(2)**

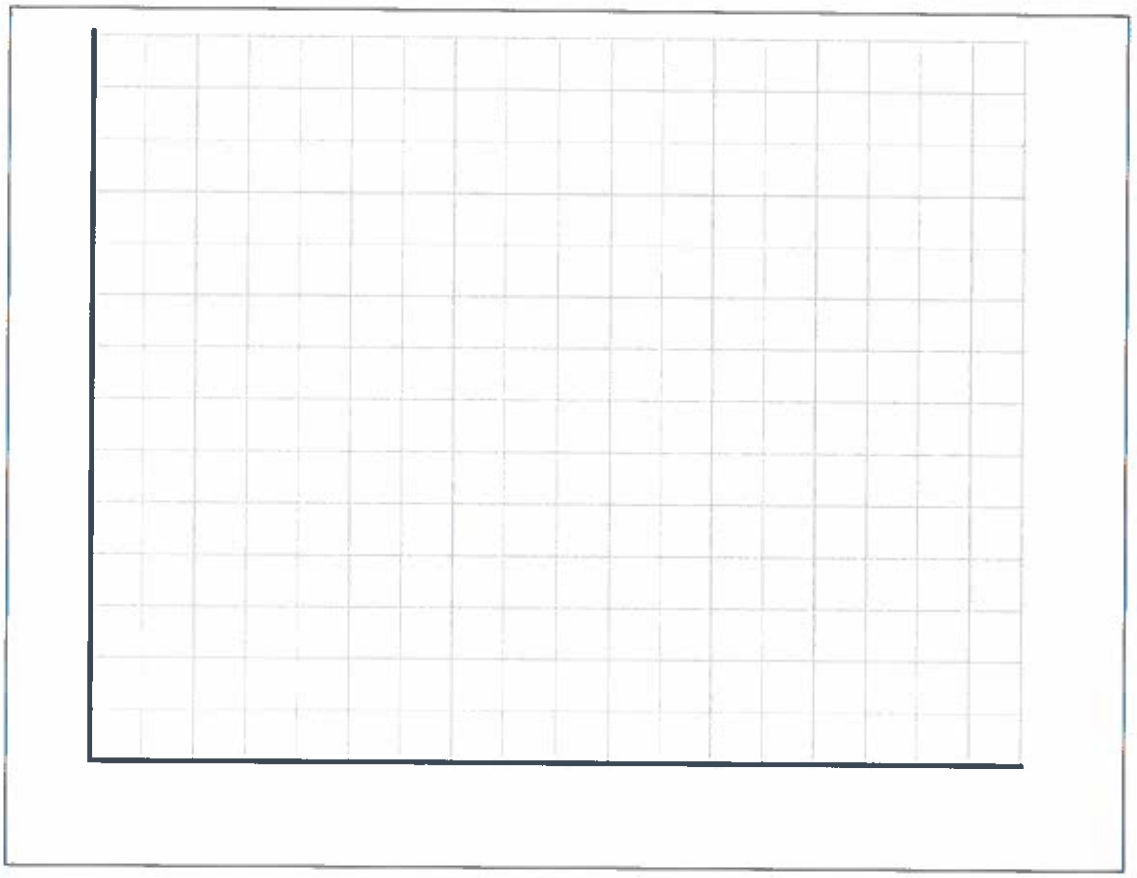
(b) Draw and use a line of best fit to estimate how much pocket money their daughter should be paid. **(2)**



6 Mr and Mrs O'Hara have a 20 year old daughter at college.
They are trying to decide how much they should give her as an allowance.
They collected the following information from other parents:

Name	Age	Amount £ per week
Poppy	18	26
Claudia	20	30
Aimee	21	40
Alex	22	49
Jordan	23	44
Chloe	20	40
Kyle	18	35
Sean	17	21

(c) Using data above, draw a scatter graph. Draw a line of best fit and use it to estimate how much allowance they should give to their daughter. **(3)**



(d) Compare the two scattergraphs you have created for questions (a) and (c). What conclusions might Mr and Mrs O'Hara come to about allowances paid to over 18s and under 18s?

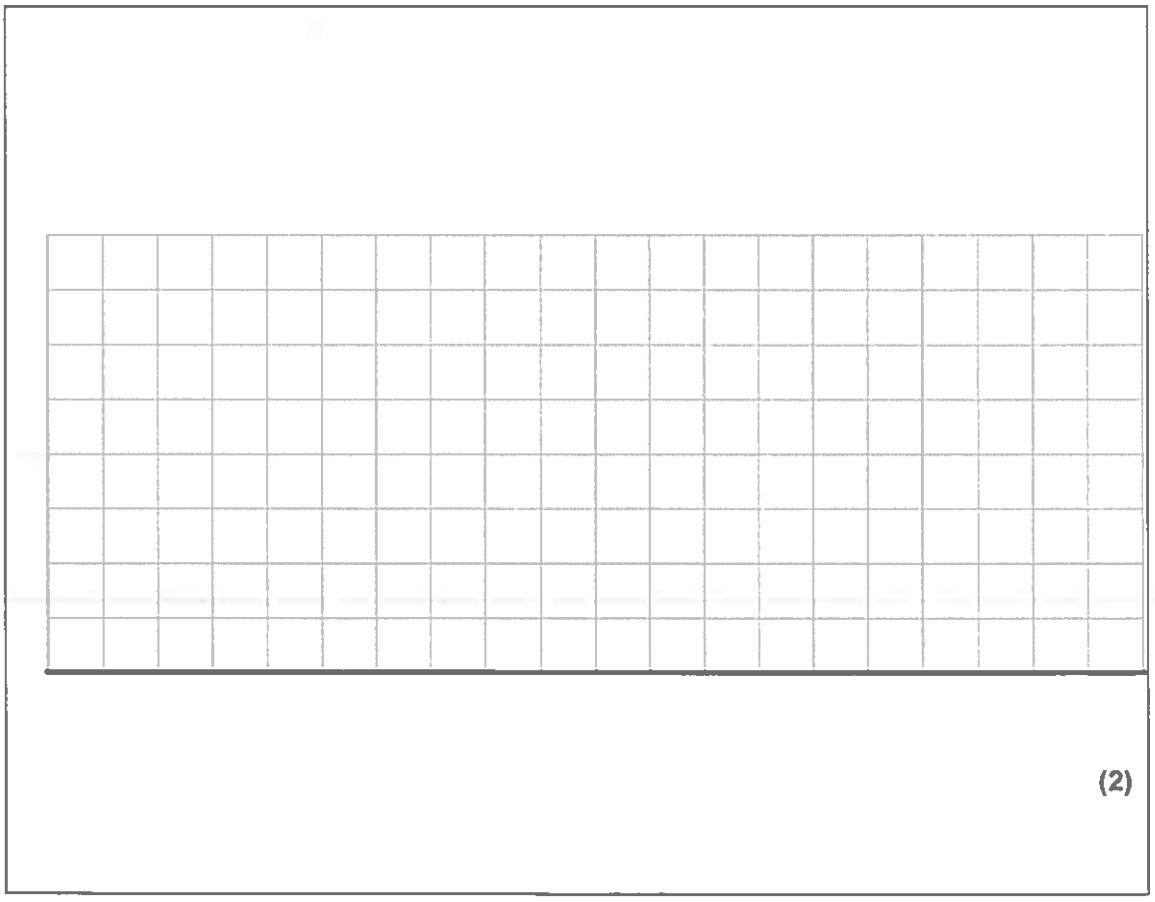
(1)

6 Mr O'Hara researched the cost of a washing machine in the shops.

Shop cost £	400	380	360	410	370	410	428

Using the data above:

(a) Make a five figure summary for this data set and use it to draw a box plot.



(2)

(b) Calculate the mean and standard deviation for the shop costs.

(4)

(c) On the internet, the same TV has a mean of £380 and a standard deviation of 21. Make two comments comparing the cost of the washing machines on the internet with the cost in shops.

(2)

5 (a)	**Representing data:** Scatter graph drawn **Representing data:** Plotted points	• Appropriate scale used and axes labelled • All points correct
(b)	**Strategy:** Draw line of best fit **Communication:** Identify estimate	• Line of best fit drawn correctly • Appropriate estimate from graph
(c)	**Representing data:** Draw scatter graph and plot points	• Appropriate scale used and axes labelled with points plotted
	Communication: Draw line of best fit **Communication:** Correct conclusion using line of best fit	• Line of best fit drawn correctly • Correct conclusion
(d)	**Communication:** Conclusion with justification	• Under 18 allowances go up as children get older, but after 18 allowances go down as they get older.
6 (a)	**Representing data**: List given	• L= 360, Q_1= 370, Q_2= 400, Q_3= 410, H = 428
	Communication: Displayed data in a box plot	• box plot drawn with plots correct and labelling correct
(b)	**Communication**: calculate mean **Communication**: calculate table values **Communication**: substitute into formula	• Mean = 394 • Table values • √(3632÷6) • 24·6
(c)	**Communication**: calculate SD	• The average on the internet is lower than the shops
	Communication: comparison using mean **Communication**: comparison using SD	• The internet prices are less spread out.