

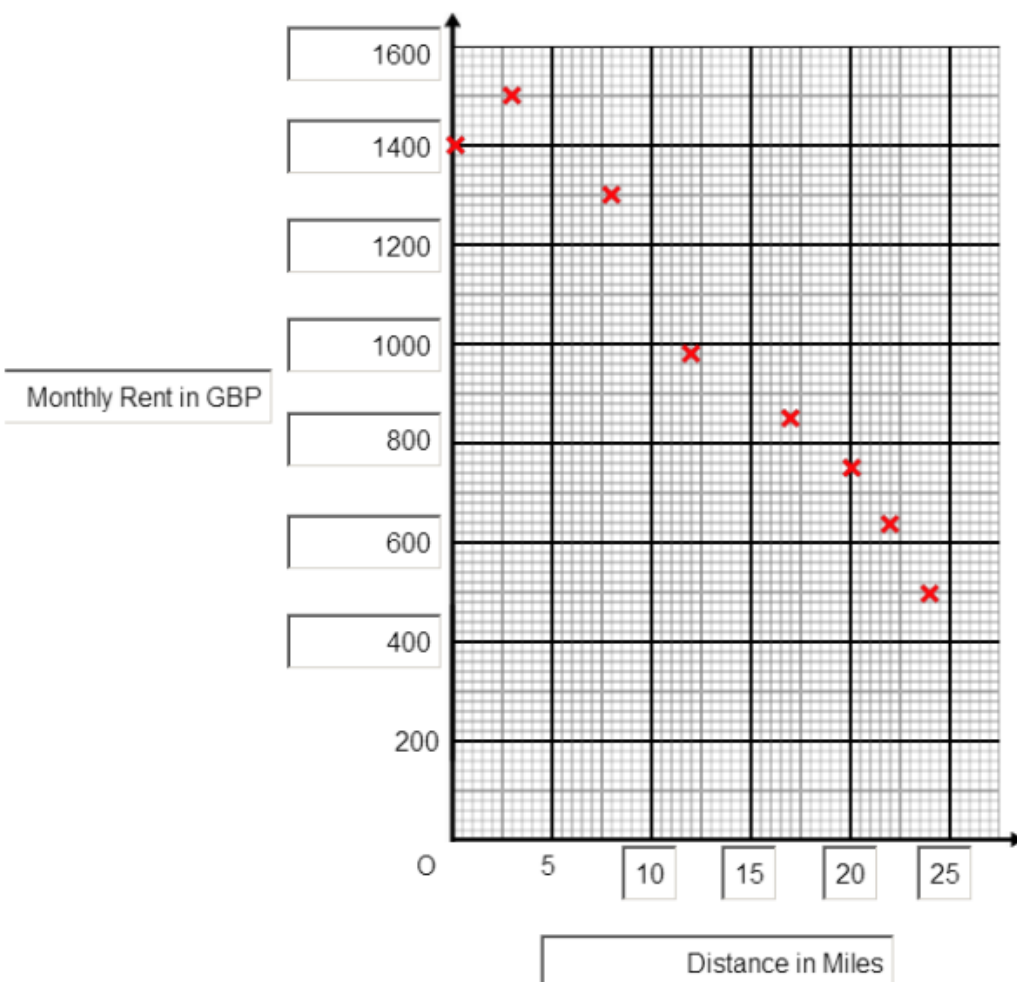
Functional Skills Maths Onscreen Mini Test | Level 2 Scatter Diagrams | Mark Scheme

Q1

Question	Process	Mark	Mark Grid	Evidence
	Interpret graph	1 or	A	e.g. 5 – 1 or 1 to 5
	Accurate figure	2	AB	4
	Read from graph using scale	1	C	2800 Maybe evident in subsequent working
	Convert units or begins to work with rates	1 or	D	e.g. $60 \times 1\frac{1}{2}$ (=90) OR $\{rate\} \times 60$ (=168 000) OR $225\,000 \div 1.5$ (=150 000) OR $225\,000 \div \{rate\}$ (=80...)
	Full process to find figures to compare	2 or	DE	e.g. $\{rate\} \times '90'$ (=252 000) OR $'168\,000' \times 1\frac{1}{2}$ (=252 000) or OR $\{rate\} \times 60$ (=168 000) and $225\,000 \div 1.5$ (=150 000) OR $225\,000 \div '90'$ (=2500) OR $60 \times 1\frac{1}{2}$ (=90) and $225\,000 \div \{rate\}$ (=80...)
	Valid conclusion with accurate figures	3	DEF	Yes AND 252 000 (litres) OR Yes AND 150 000 (l/hr) and 168 000 (l/hr) OR Yes AND 2500 (l/min) and 2800 (l/min) OR Yes AND 90 (min) and 80 (... min) NB this question requires working shown
Total marks for question		6		

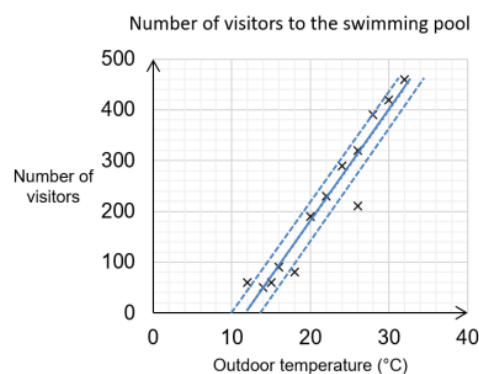
Q2

Question	Process	Mark	Mark Grid	Evidence
	Begins to draw scatter diagram	1 or	A	2 of: Completes linear scale on the x-axis Completes linear scale on the y-axis Accurate plotting of at least 5 data points Correctly labels x-axis Correctly labels y-axis
	Develops solution	2 or	AB	3 of: Completes linear scale on the x-axis Completes linear scale on the y-axis Accurate plotting of at least 5 data points Correctly labels x-axis Correctly labels y-axis
	Fully correct scatter diagram	3	ABC	All of: Completes both linear scales Accurate plotting of all data points Correct labels (Distance (in miles) or miles and (monthly) rent (£))
Total marks for question		3		



Q3

Question	Process	Mark	Mark Grid	Evidence
	Correct description of the relationship	1	A	e.g. positive correlation or the higher the temperature the more visitors
	Accurate line of best fit	1	B	Correct line of best fit, see advisory diagram below AND line must have at least 2 points on either side of the line AND must cover the full data set or reach an axis
	Accurate figure	1	C	300, accept [270, 320] OR ft accurate reading from their line of best fit provided gradient is positive
Total marks for question				3

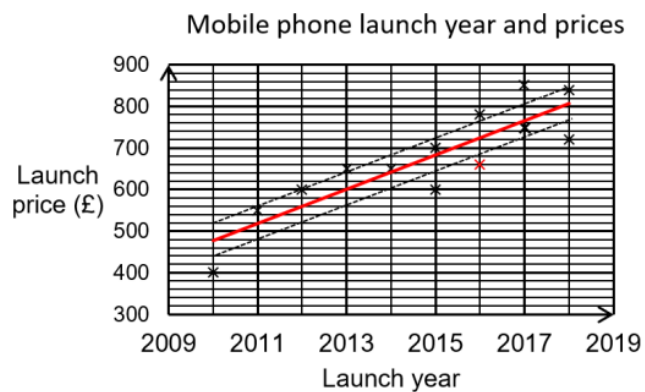


Q4

Question	Process	Mark	Mark Grid	Evidence
	Begins process to find range by interpreting scatter diagram	1 or	A	Identifies 50 and 390 (± 5)
	Accurate figure	2	AB	340 (± 5)
	Begins to interpret the scatter diagram	1 or	C	e.g. 26 (accept 24 to 28) or plots a point at (x, 250) where x is between 24 and 28 inclusive or draw a line of best fit and indicates y = 250 on the line of best fit
	Full process to find the estimated total cost	2 or	CD	'26' \times '1.37' (=35.62) Accept (£)31.20 to (£) 42.00
	Accurate figure with supportive working	3	CDE	(£)35.62 Accept (£)32.88 to (£)38.36
Total marks for question				5

Q5

Question	Process	Mark	Mark Grid	Evidence
	Correct plotting	1	A	Plots point (2016, 660)
	Correct line of best fit	1	B	Line of best fit placed correctly See guidance boxes on diagram
	Correct description of correlation	1	C	e.g. positive correlation (between launch year and price) OR the newer the phone the higher the price
Total marks for question		3		



Q6

Question	Process	Mark	Mark Grid	Evidence
	Correct line of best fit	1	A	Line of best fit placed correctly See guidance on diagram AND line must have at least 2 points above or below the line AND must cover the full data set or reach an axis
	Interprets scatter diagram	1	B	e.g. 22 to 23 OR ft accurate reading from their line of best fit providing gradient is negative
	Correct description of correlation	1	C	e.g. negative correlation (between age and cost) OR the cost of insurance decreases as you get older
Total marks for question		3		

