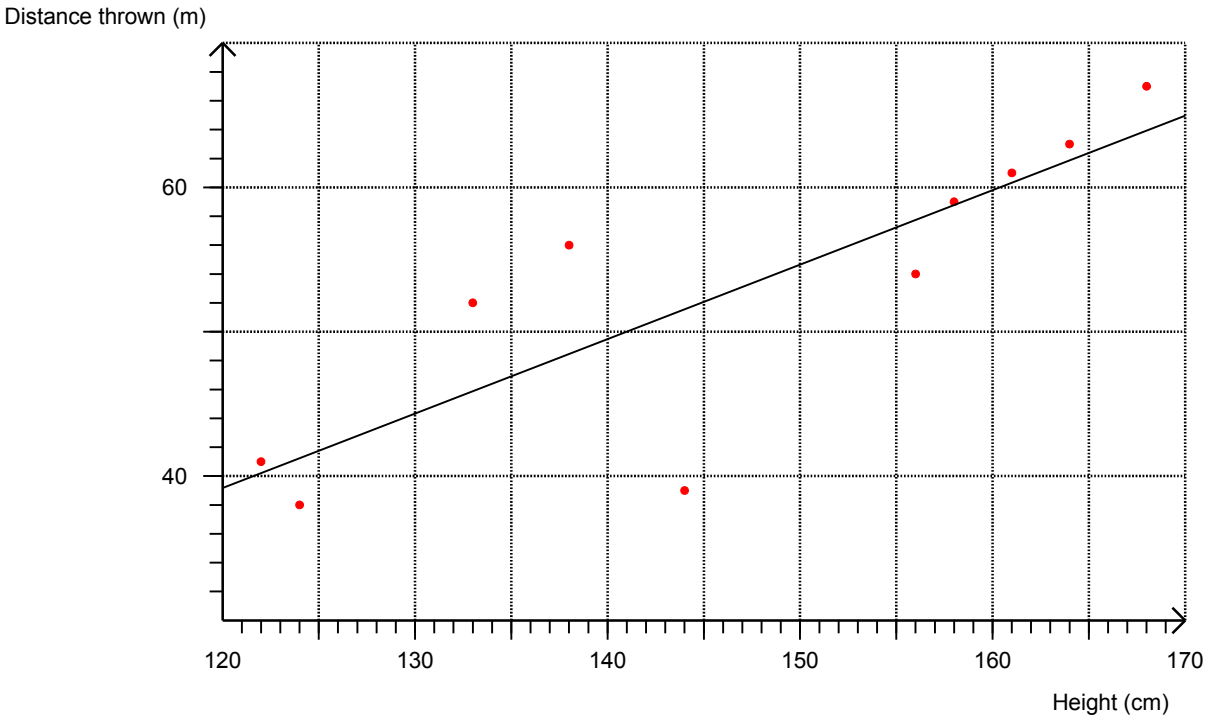
Cumulative Frequency – Answers

1) (a)

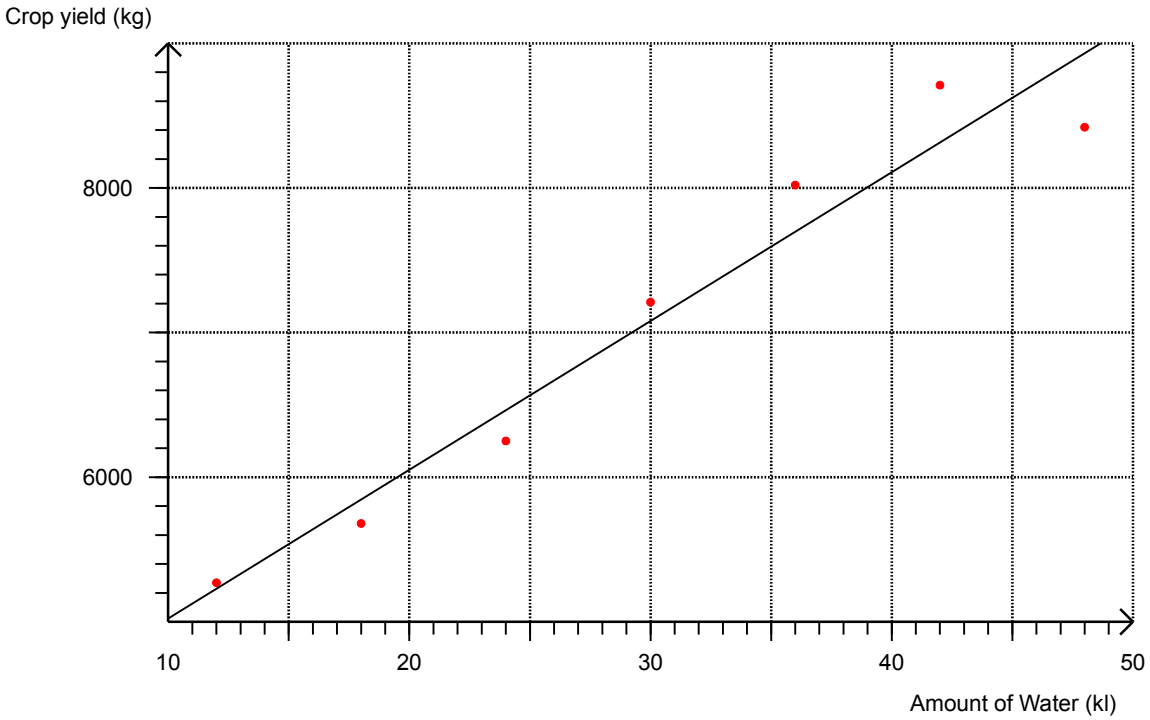


(b) Gradient = 0.5 (approx). For every extra cm of height, a boy can throw an extra 0.5 metres

(c) $y = 0.5x - 20$ (approx)

(d) 55 metres

2)



(b) Gradient = 100 (approx). Each extra kilolitre of water increases crop yield by 100 kg.

(c) $y = 100x + 4000$ (approx)

(d) (i) If 33kl of water is used, yield will be approximately 7300 kg. This seems reasonable as it is an interpolation between the experimental data points.

(ii) If 100kl of water is used, yield will be approximately 14000 kg. We cannot rely on this estimate as we are extrapolating a long way beyond the experimental data. Maybe using too much water will cause the crop to become waterlogged and reduce the yield?