Excel Standard 2 Year 12 Chapter 7 corrections

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In the Excel textbook (Baker, 2018) there are some errors introduced by adding or subtracting values from normal distribution tables already rounded to 4 decimal places. The result is not necessarily correct to 4 decimal places. This can be remedied by use of the CASIO fx-100 AU PLUS 2nd edition calculator which gives more accurate calculations.

The corrections are for Chapter 7

- Section 7 Example 2

- Section 8 Example 4 and Practice 4

- HSC Exam-Type Questions Q10(d)

For the CASIO fx-100AU PLUS 2nd edition calculator in Statistics Mode, Press MODE 3 1 AC to put it into Statistics Mode and exit the Editor Screen.

Then press SHIFT 1 5 2 z_1) = to get $Q(z_1) := P(0 < z < z_1)$ for some positive z-score z_1.

Section 7 Example 2

$100P(0.25 \leq z \leq 1.25) = 100Q(1.25) - 100Q(0.25) = 29.5644\% \approx 29.56\%$ not 29.57%.

Section 8 Example 4

$P\left(\frac{100-117}{9.4} \leq z \leq \frac{120-117}{9.4}\right) = Q\left(\frac{17}{9.4}\right) + Q\left(\frac{3}{9.4}\right) = 0.58993 \approx 0.5899$ not 0.5904.

Section 8 Practice 4

$P\left(\frac{30-36}{4.5} \leq z \leq \frac{40-36}{4.5}\right) = Q\left(\frac{6}{4.5}\right) + Q\left(\frac{4}{4.5}\right) = 0.72176 \approx 0.7218$ not 0.7215

HSC Exam-Type Questions Q10(d)

$100P\left(\frac{101-113}{12} \leq z \leq \frac{149-113}{12}\right) = 100Q(1) + 100Q(3) = 83.999\% \approx 84.00\%$ not 83.85%.

Reference

Baker, L., Excel Year 12 Standard Mathematics 2, Pascal Press, 2018