

Section 1: The Normal distribution

Crucial points

1. **Use symmetry where you can**
Initially make sure you are very confident in being able to manipulate standardised test scores by using symmetry.
2. **Make good use of diagrams to illustrate your answers**
Draw a sketch showing the distribution and shading the area you are considering.
3. **Define your variables**
Carefully define your non-standardised variable with X or Y or..... (but of course not Z).
4. **Be careful to distinguish between values of Z and values of X**
Confusion with notation makes it harder for you to be awarded method marks. Show clearly how you are standardising values.
5. **Write down clear probability statements**
Again you are more likely to receive method marks if your statements are easy to read.
6. **Know how to use your calculator to find Normal probabilities**
Make sure you know how to use both the Normal and inverse Normal functions.
7. **Remember that the Normal distribution is a continuous distribution**
Probabilities such as $P(X = 45)$ will be zero if X is a Normal distribution, as this would mean finding the area of a line.