**1D Using de Moivre to Prove Trigonometric Identities**

1. Express cos3θ using powers of cosθ.
2. Use De Moivre’s theorem to show that:

Further notes:

1. Express cos5θ in the form **a**cos5θ + **b**cos3θ + **c**cosθ

Where **a**, **b** and **c** are constants to be found.

1. Express sin4θ in the form:
2. Hence, find the exact value of the following integral: