**WORKSHEET XXI**

**Substitution in indefinite & Definite integrals**

***I*** Use the *method of substitution* to evaluate each of the following indefinite integrals.































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***II***  Integrating squares of sine and cosine.





### *III* For each of the following integrals, use the *change of variable theorem* for definite integrals:

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***IV*** Let f(x) be continuous on the real line. Verify that







*A substitute shines brightly as a king,*

*Until a king be by.*

- Shakespeare, **The Merchant of Venice**

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