**2D Composite Maclaurin Series**

Formula Book Formulae:



1. Write down the first 4 non-zero terms in the series expansion of cos(2x2)
2. Find the first 4 non-zero terms in the series expansion of:

$$ln\left\{\frac{\sqrt{1+2x}}{1-3x}\right\}$$

1. Given that terms in xn, n > 4 can be ignored, show, using the series expansions of ex and sinx, that:

$$e^{sinx}≈1+x+\frac{x^{2}}{2}-\frac{x^{4}}{8}$$