

Answers to MEEG 2003 Test IId

1. (a) $W = \frac{16}{\pi} = 5.093$ $W = 5.09 \text{ kN}$
(b) $F_C = 4.32497$ $\mathbf{F}_C = -1.663\mathbf{i} + 3.99\mathbf{j} \text{ kN}$
(c) $B_x = 1.6634$ $B_y = 1.10068$ $\mathbf{B} = 1.663\mathbf{i} + 1.101\mathbf{j} \text{ kN}$
2. (a) $W = 720 \text{ lb}$
(b) $\mathbf{A} = 24\mathbf{i} + 452\mathbf{j} \text{ lb}$
3. A. (a)
B. (f)
C. (b)
D. (a)
4. *See text.*