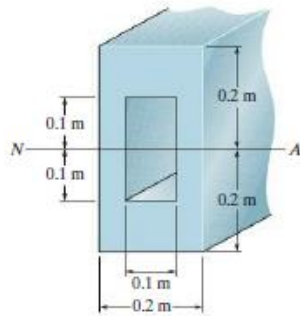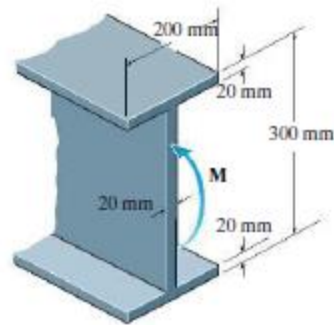# MAK 206 HW #5

P6–2. Determine the moment of inertia of the cross section about the neutral axis.
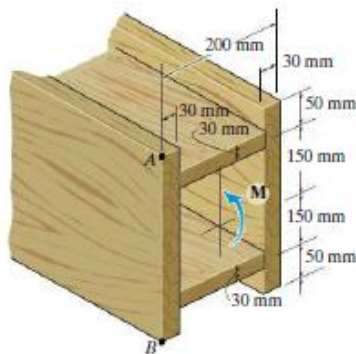
F6–11. If the beam is subjected to a bending moment of $M = 50$ kN·m, determine the maximum bending stress in the beam.

0.2 m
0.1 m
N ——— A
0.1 m
0.2 m
0.1 m
0.2 m

P6–2

200 mm
20 mm
300 mm
M
20 mm
20 mm

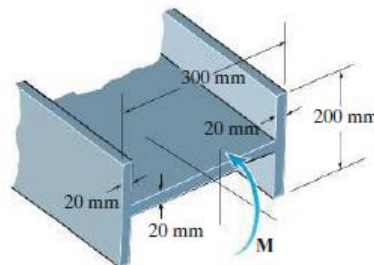**F6–11**

F6–12. If the beam is subjected to a bending moment of $M = 10$ kN·m, determine the bending stress in the beam at points A and B, and sketch the results on a differential element at each of these points.

200 mm
30 mm
50 mm
30 mm
30 mm
150 mm
A
M
150 mm
50 mm
30 mm
B

F6–12

F6–9. If the beam is subjected to a bending moment of $M = 20$ kN·m, determine the maximum bending stress in the beam.

300 mm
20 mm
200 mm
20 mm
20 mm
M

F6–9