

**Answers 8.87:1 :**

a)  $\varphi_A = 0.003$

b)  $w_{midAB} = 6.75mm \uparrow$

c)  $w_c = 15mm \downarrow$

**Answers 8.87:2 :**

a)  $\varphi_A = 0.00075$

b)  $w_{midAB} = 2.25mm \uparrow$

c)  $w_c = 11.5mm \downarrow$