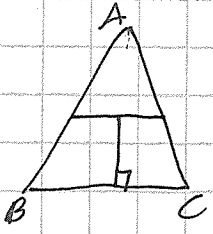


Met 6208
2008-Controle II -

3



$$g^E = X_A X_B (a_1 + b_1 (X_A - (1 - X_A)))$$

$$+ X_C X_A (a_2 + b_2 (X_A - (1 - X_A)))$$

$$+ X_B X_C (a_3 + b_3 (X_C - X_B))$$

$$g^E = X_A X_B (a_1 + b_1 (2X_A - 1))$$

$$+ X_C X_A (a_2 + b_2 (2X_A - 1))$$

$$+ X_B X_C (a_3 + b_3 (X_C - X_B))$$

$$g_A^E = \frac{2G}{2M_A} = \frac{2(M_A + M_B + M_C)}{2M_A}$$

Let: $(M_A + M_B + M_C) = M_T$ $X_i = M_i / M_T$

$$g_A^E = \frac{2}{2M_A} \left[\frac{M_A M_B}{M_T} (a_1 + b_1 (\frac{2M_A}{M_T} - 1)) + \frac{M_C M_A}{M_T} (a_2 + b_2 (\frac{2M_A}{M_T} - 1)) \right.$$

$$\left. + \frac{M_B M_C}{M_T} (a_3 + b_3 (\frac{M_C - M_B}{M_T})) \right]$$

$M_B, M_C = \text{const.}$

$$= \frac{M_B}{M_T} (a_1 + b_1 (2X_A - 1)) - \frac{M_A M_B}{M_T^2} (a_1 + b_1 (2X_A - 1))$$

$$+ \frac{M_A M_B}{M_T} \cdot b_1 \left(\frac{2}{M_T} - \frac{2M_A}{M_T^2} \right) + \left(\frac{M_C}{M_T} - \frac{M_A M_C}{M_T^2} \right) (a_2 + b_2 (2X_A - 1))$$

$$+ \frac{M_C M_A}{M_T} \cdot b_2 \left(\frac{2}{M_T} - \frac{2M_A}{M_T^2} \right) - \frac{M_B M_C}{M_T^2} (a_3 + b_3) - \frac{2M_B M_C}{M_T^3} (M_C - M_B) \frac{1}{3}$$

$$= (a_1 + b_1 (2X_A - 1)) (X_B) (1 - X_A) + 2X_A X_B (1 - X_A) b_1$$

$$+ (a_2 + b_2 (2X_A - 1)) (X_C) (1 - X_A) + 2X_C X_A (1 - X_A) b_2$$

$$+ X_B X_C (a_3 + b_3 + 2b_3 (X_C - X_B))$$