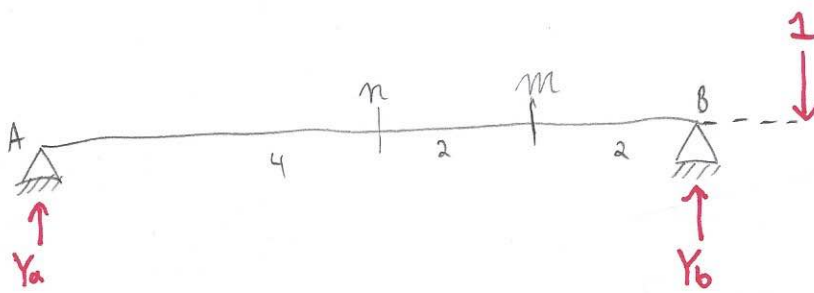
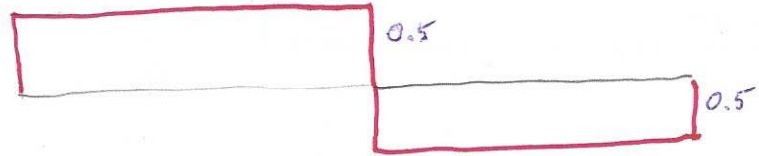


①

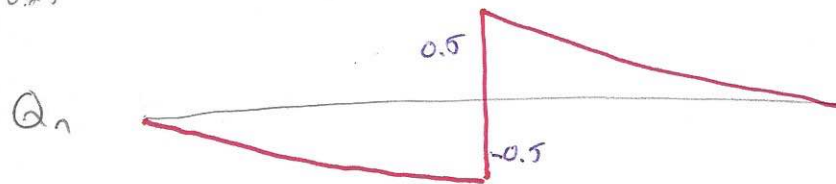


n

If load applied @ n.

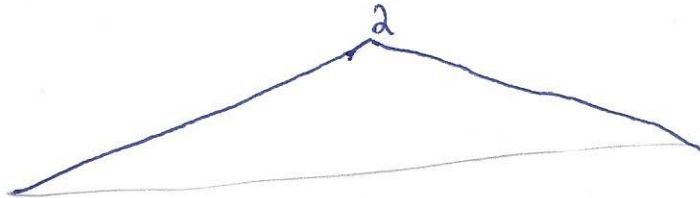


@ 2,  $\sum F_y = 0, Y_a(0.75) - 1 - Q_n = 0$ , @ zeros,  $Q_n = 0$   
 $Q_n = -0.25$



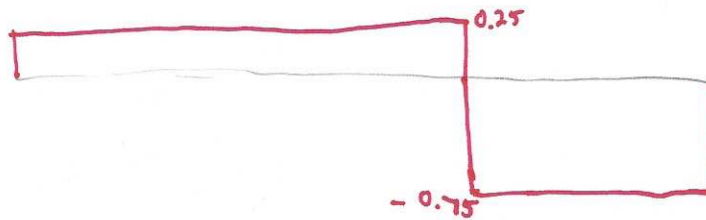
@ n,  $\sum M = 0, 0.5(4) = M, M = 2$

$M_n$

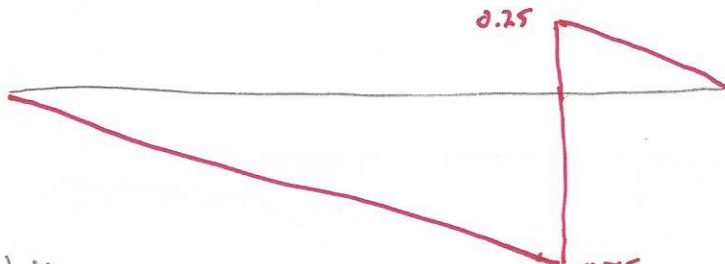


m

If load applied @ m,



$\therefore Q_m$



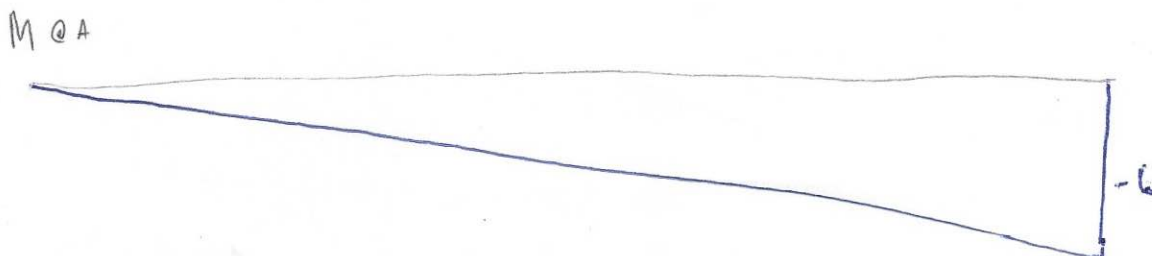
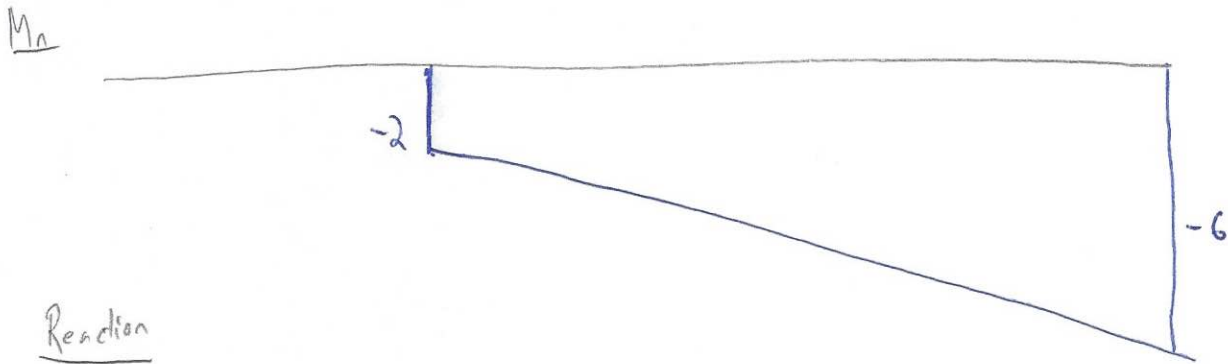
@ (2),  $\sum M = 0, 0.75(2) = M$   
 $= 1.5$



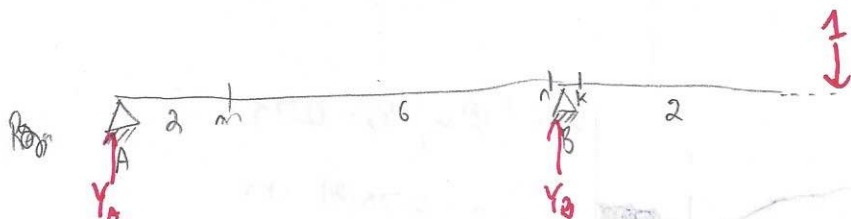
②



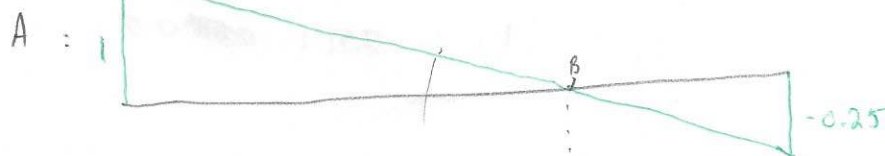
$M_n = -2$   
 @ 6,  $M_A = 6 \text{ } \curvearrowright$ , @ 2,  $M_A = 2 \text{ } \curvearrowright$ ,  $M_n = -2$   
 $0 \leq x < 2$ ,  $\sum M = 0$ ,  $1(x) = M_A$ ,  $\therefore M_n = 0$  @ 1,  $\sum M_n = 0$ ,  $M_A + 1(1) + M_n$ ,  $M_n = 0$



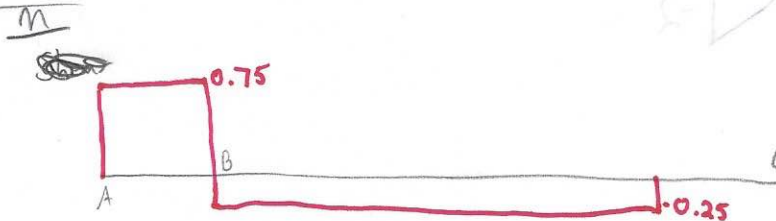
③



Reactions

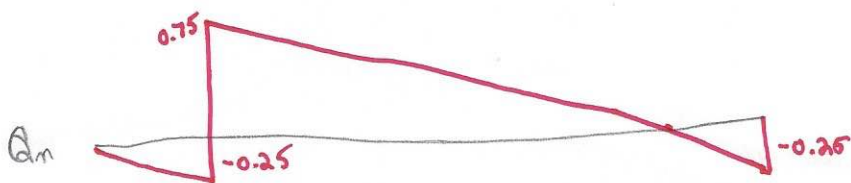


Shear



When 1 applied @ C,  $\sum M_A = 0, 1(10) - Y_B(8)$   
 $Y_B = 1.25$

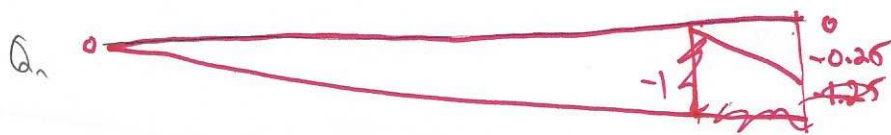
$\sum F_y = 0, 1.25 - 1 + Y_m, Y_m = -0.25$



When 1 applied @ n,  $\sum F_y = 0, n_y = -1$

When 1 applied @ C,  $\sum M_A = 0, Y_B = 1.25$

$\sum F_y = 0, n_y + Y_B - 1$   
 $n_y = -0.25$

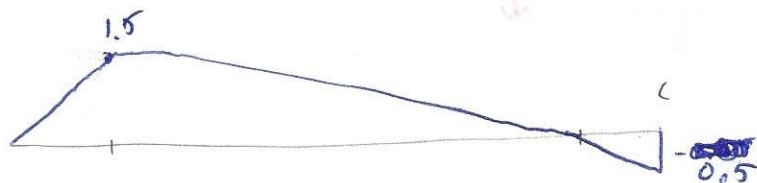


When 1 applied @ C,  $k_y = 1 \uparrow$



# Moment

m:



when  $l @ m$ ,  $V_A = 0.75$

$\therefore m = 0.75(2) = 1.5$

when  $l @ C$ ,  $\sum M_B = 0$ ,  $V_B = -0.25 \uparrow$

$\therefore M_m = -0.25(2) = -0.5$

n:



when  $l @ C$ ,  $\sum M_A = 0$ ,  $-1(2) = -2$

k:

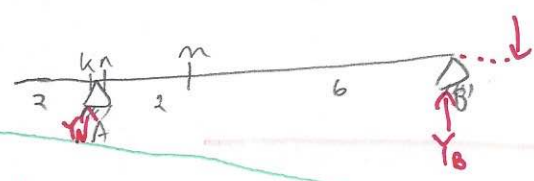


when  $l @ C$ ,  $\sum M_A = 0$ ,  $-1(2) = -2$



4)

Reactions

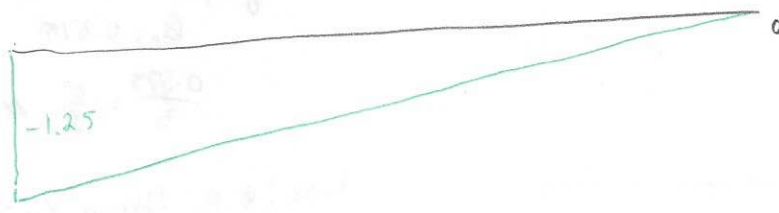


when  $l @ 0$ ,  
 $\sum M_B = 0, -1(6) + Y_A(8)$   
 $Y_A = 1.25$

A =



B:



k

Shear



$Q_k$



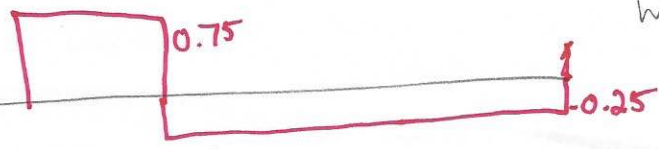
$M_k$



when  $l @ 0$ ,  $M_k = -1(2) = -2$

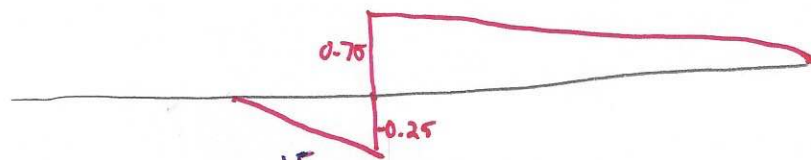
m

Shear

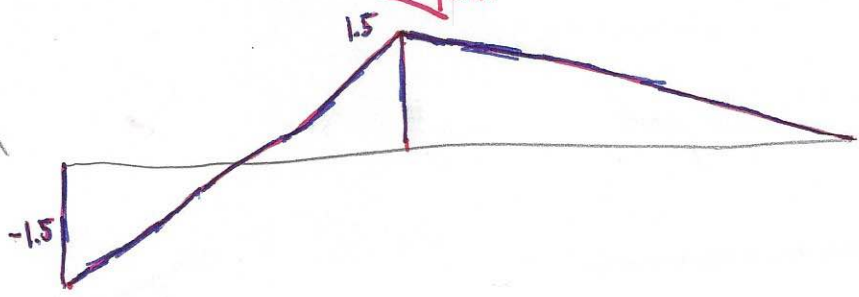


when  $l @ m$ ,

$Q_m$



$M_m$



when  $l @ m$ ,  $Y_B = 0.25$   
 $\therefore M_m = 0.25(6) = 1.5$   
when  $l @ 0$ ,  $Y_B = 0.25 [1]$   
 $M_m = -0.25(6) = -1.5$

n

Shear  $Q_n$



When 1 @ 3 [from right],  $Y_B = 0.625$

$$\sum F_y = 0, 0.625 - 1 + Q_n$$

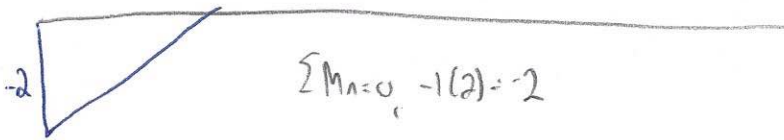
$$Q_n = 0.375$$

$$\frac{0.375}{3} = \frac{x}{8}, x = 1.666$$

When 1 @ 0,  $\sum M_A = 0, Y_B = 0.25$

$$\therefore n_v = 0.25$$

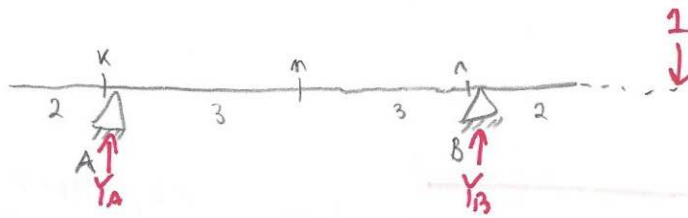
$M_n$



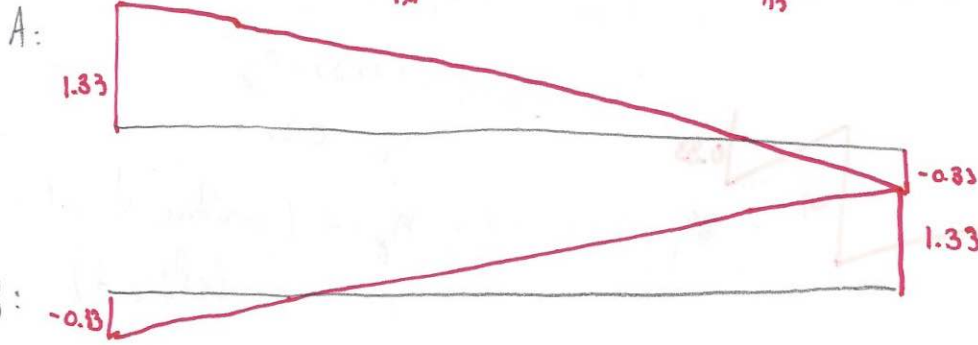
$$\sum M_A = 0, -1(2) = -2$$

5)

Reactions



Since @ 6 from B (i.e. A),  $Y_A = 1$ ,  
 $\frac{1}{6} = \frac{x}{8}$ ,  $x = 1.33$



Shear



$Q_k$



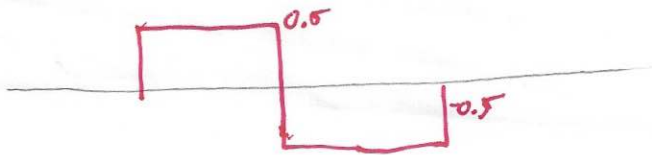
$M_k$



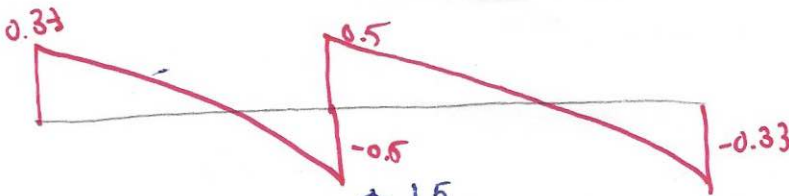
$-1(2) = -2$

$m$

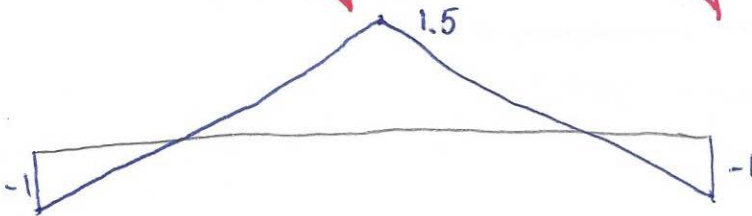
Shear



$Q_m$



$M_m$



When 1 @ 0,  $\sum M_B = 0$ ,  $1(8) - Y_A(6)$   
 $Y_A = 1.33$   
 $\sum F_y = 0$ ,  $-1 + 1.33 + m_y$   
 $m_y = 0.33$

When 1 @  $m$ ,  $Y_A = 0.5$   
 $\therefore M_m = 0.5 \cdot 3 = 1.5$

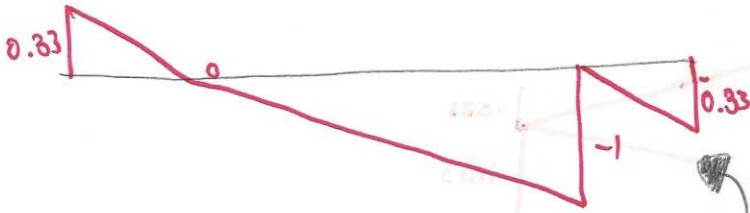
When 1 @ 0,  $Y_B = -0.33$   
 $\therefore \sum M_x = 0$ ,  $M_m = -1$

n

Shear

$Q_n$

$M_n$



When 1 @ D,  $\sum M_A = 0$ ,  $Y_B = 1.33 \uparrow$

$$\sum F_y = 0, -1 + 1.33 + r_y$$

$$r_y = -0.33$$

When 1 @ n,  $r_y = -1$  (positive  $\downarrow$  w/ left out)

When 1 @ 0,  $Y_A = 1.33 \uparrow$

$$\sum F_y: 1.33 - 1 - r_y$$

$$r_y = 0.33$$

-1(2)