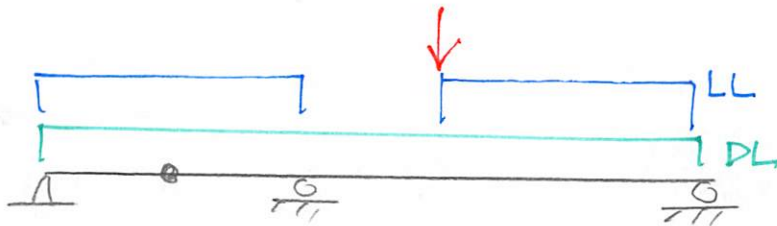
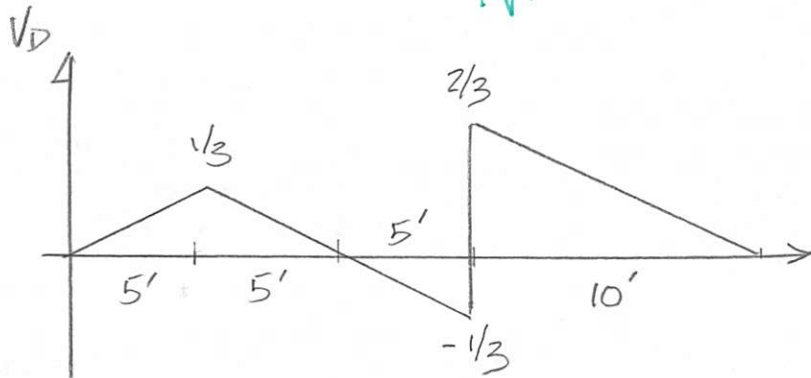
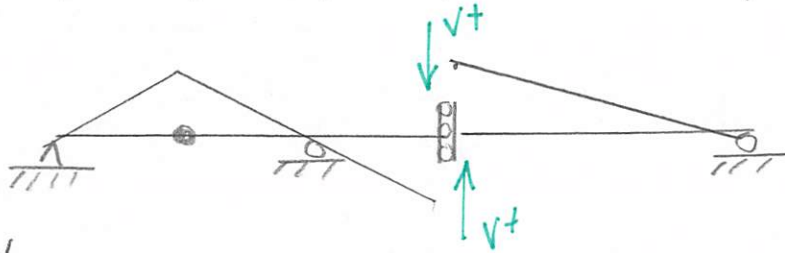
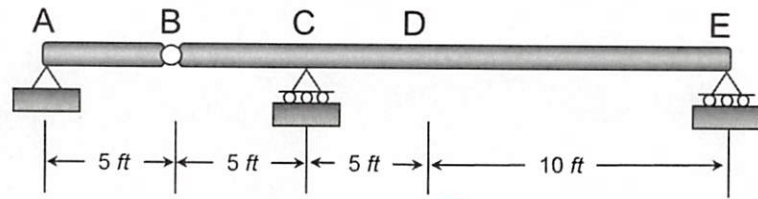


Example 6b-2: Determine the maximum positive shear force that can be developed at point D in the beam shown below due to a concentrated live load of 4 k, a uniform live load of 300 lb/ft, and a dead load of 200 lb/ft.



⊗ CONCENTRATED FORCE

$$4k\left(\frac{2}{3}\right) = \frac{8}{3}k = 2.67k$$

⊗ UNIFORM DEAD LOAD

$$\left(\frac{1}{2}\right) 0.2k/ft \left[10ft\left(\frac{1}{3}\right) + 5ft\left(-\frac{1}{3}\right) + 10ft\left(\frac{2}{3}\right) \right]$$

$$= 0.833k$$

⊗ UNIFORM LINE LOAD

$$0.3k/ft \left(\frac{1}{2}\right) \left[10ft\left(\frac{1}{3}\right) + 10ft\left(\frac{2}{3}\right) \right]$$

$$= 1.5k$$

$$\underline{\underline{V_c = 5kN}}$$