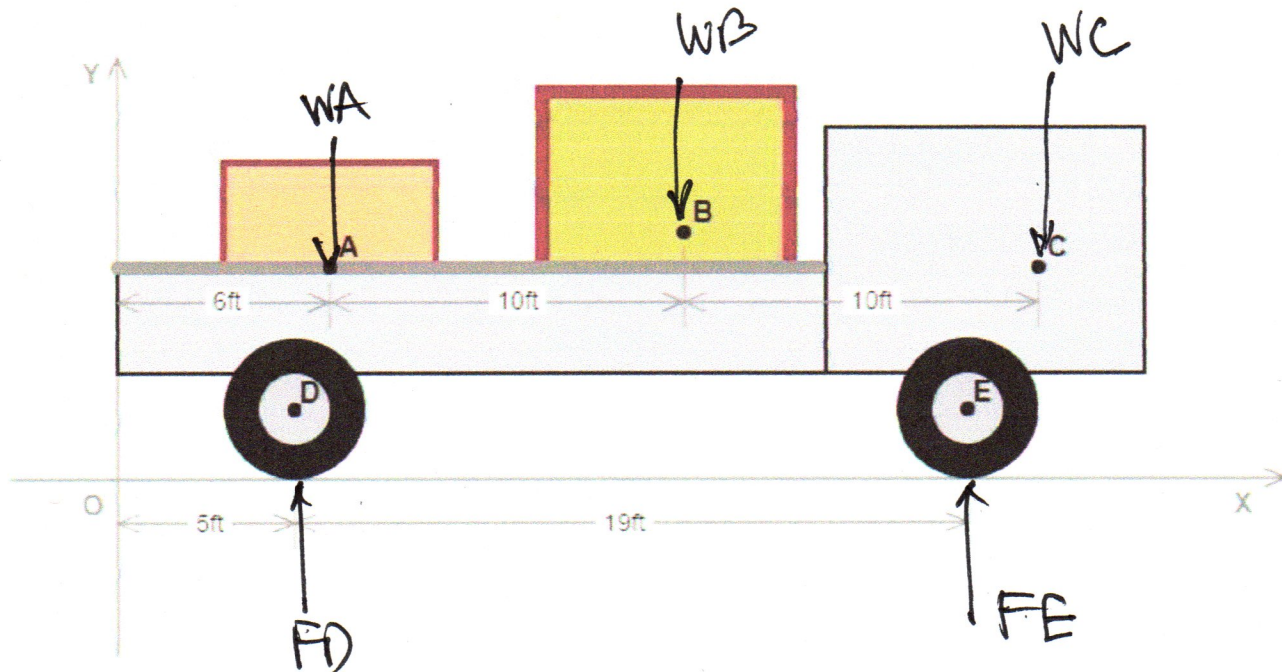


ip4STATICS Worksheet for U04_P02

A truck weighing WC tons carries two loads, weighing WA and WB tons, respectively.

Instance variables: forces WA , WB and WC , in tons.



(1) What is the reaction force FD at tire D? (Enter 'tons,deg')

(2) What is the reaction force FE at tire E? (Enter 'tons,deg')

$$\sum F_y = 0 : FD + FE = WA + WB + WC$$

$$\sum M_D = 0 : 19 \cdot FE = 1 \cdot WA + 11 \cdot WB + 21 \cdot WC$$

$$(2) FE = \left(\frac{1}{19}\right)(1 \cdot WA + 11 \cdot WB + 21 \cdot WC)$$

$$(1) FD = (WA + WB + WC) - FE$$