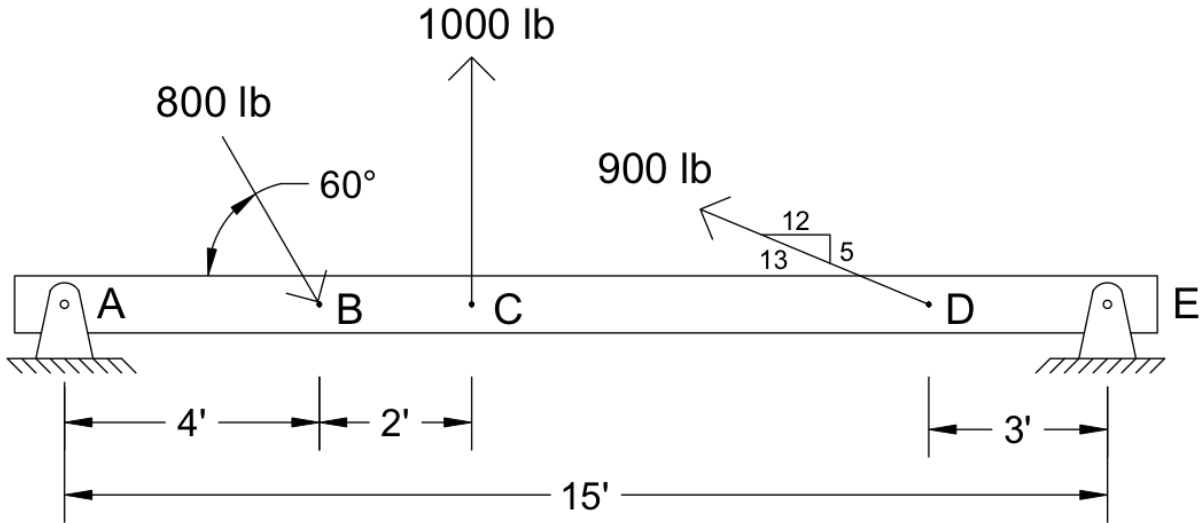
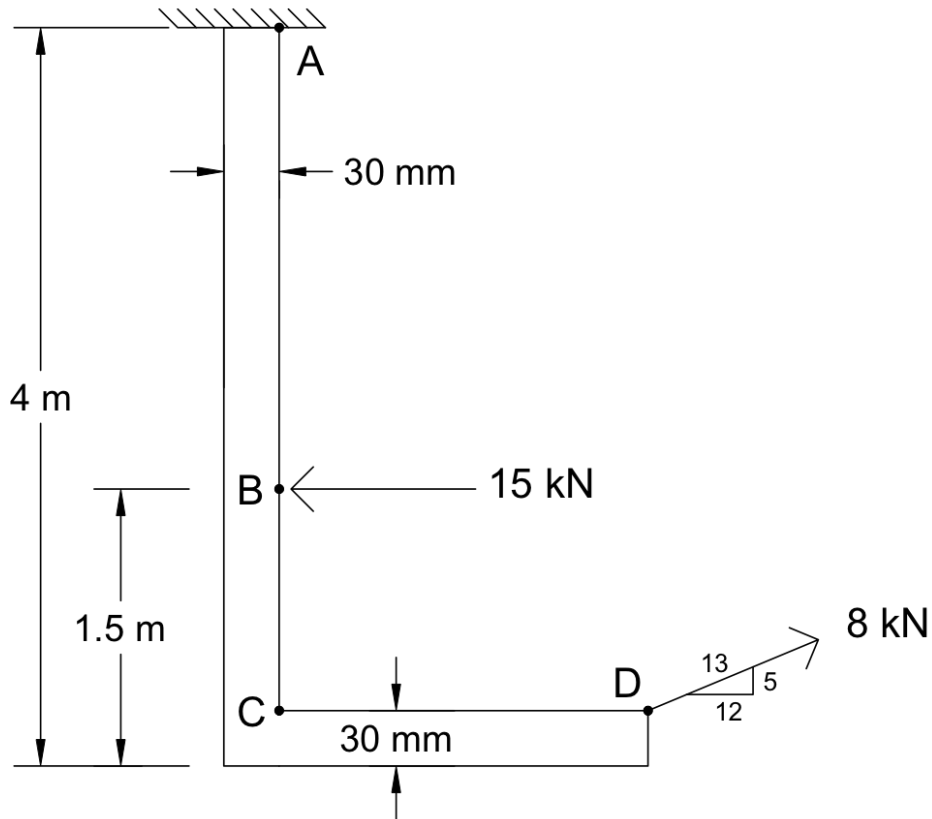


1. Explain the difference between concurrent, coplanar, and parallel force systems.
2. Replace the loading system by an equivalent resultant force and specify where the resultant's line of action intersects the horizontal imaginary line AE, measured from point A.



3. Replace the loading system by an equivalent resultant force and specify where the resultant's line of action intersects line AC, measured from point A.



4. A plate is subjected to four forces that are parallel to the z-axis. Replace the loading system by an equivalent resultant force (make sure to specify the magnitude and direction). Find the location where the resultant force acts on the plate as measured from the origin (i.e. find the x and y coordinates of the resultant force).

<u>Point</u>	<u>Coordinates</u>
O	(0, 0, 0) m
A	(3, 5, 0) m
B	(8, 2, 0) m
C	(1, 9, 0) m
D	(10, 12, 0) m

