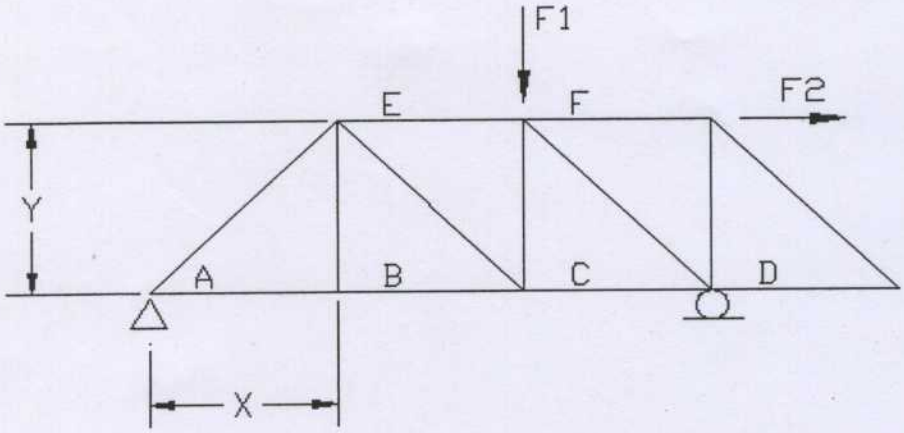
A FX_5a Name_____

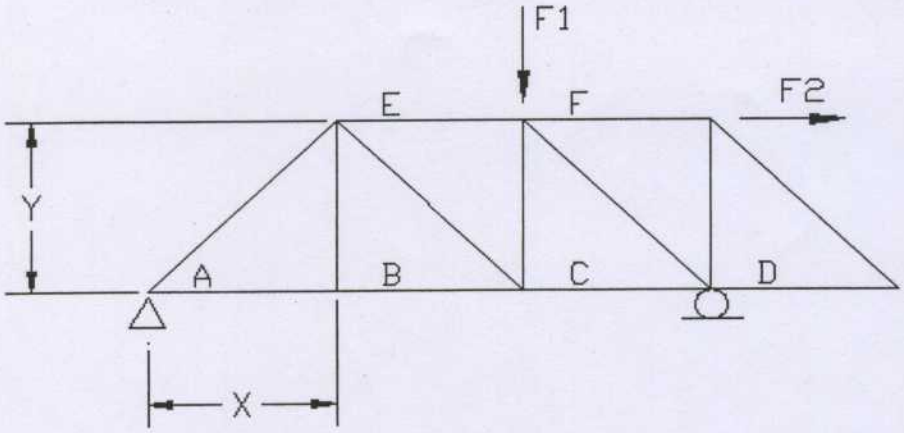



DETERMINE THE FORCES IN MEMBERS EF, EC, & CF UTILIZING THE METHOD OF SECTIONS. INDICATE ALSO WHETHER EACH IS TENSILE OR COMPRESSIVE.

| | | |
|---|---|---|
| X= | 4 ft | bay width (typ) |
| Y= | 3 ft | trus height |
| F1= | 12 kips | |
| F2= | 4 kips | |

Determine the required rod diameter for the following scenario:

| | |
|---|---|
| Length | 4 m |
| P = | 78 kN |
| factor of safety | 3 [1] |
| material | aluminum |
| yield stress | 240 MPa |




DETERMINE THE FORCES IN MEMBERS EF, EC, & CF UTILIZING THE METHOD OF SECTIONS. INDICATE ALSO WHETHER EACH IS TENSILE OR COMPRESSIVE.

| | | |
|---|---|---|
| X= 4 ft | | bay width (typ) |
| Y= 5 ft | | trus height |
| F1= | 15 | kips |
| F2= | 5 | kips |

Determine the required rod diameter for the following scenario:

| | | |
|---|---|---|
| Length | | 5 m |
| P = | | 54 kN |
| factor of safety | | 2.5 [1] |
| material | steel | |
| yield stress | | 345 MPa |