



**3055 BA SANGAM COLLEGE**  
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**School: Ba Sangam College**  
**Subject: Technical Drawing**

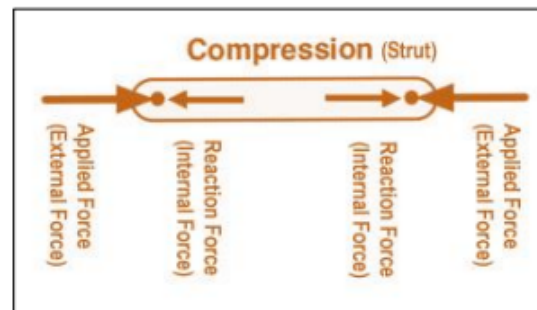
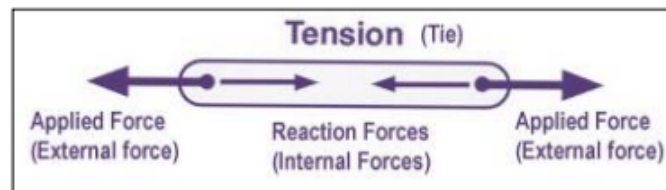
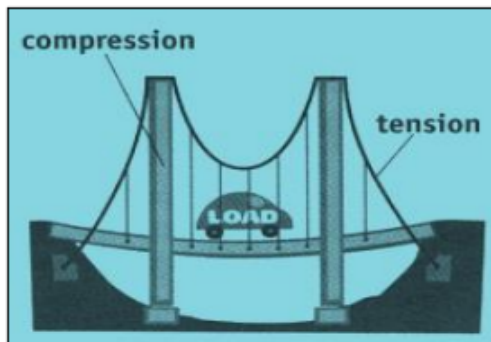
**Year/Level: 13**  
**Worksheet 17**

**Name: \_\_\_\_\_**  
**Year: \_\_\_\_\_**

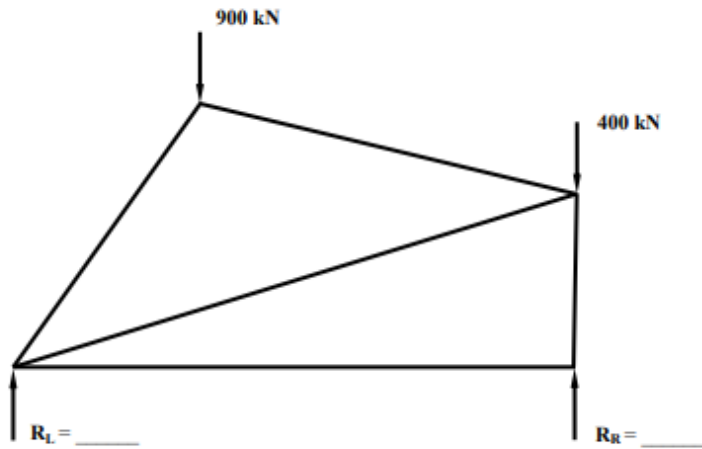
|                          |   |
|--------------------------|---|
| Strand                   | Applied Mechanics   |
| Sub Strand               | Truss   |
| Content Learning Outcome | Define the terms and use the knowledge to do truss analysis |

**Reaction of Members**

**Activity (15**  
 Sangam Education



**marks)**  
 Board – Online Resources



**QUESTION 2**

**(15 marks)**

**Given:** A typical truss with loads acting on it and its sketch not drawn to scale.

- Required:**
- (i) Find the reactions  $R_L$  and  $R_R$  at the supports. **(5 marks)**
  - (ii) Determine the magnitude and nature of the members of the truss by completing the table given on the below. **(9 marks)**

| MEMBER    | AE | BE | CF | DF | EF |
|-----------|----|----|----|----|----|
| MAGNITUDE |    |    |    |    |    |
| NATURE    |    |    |    |    |    |

| (i)  |                                    |   |
|------|------------------------------------|---|
| 1    | Accuracy – load line               | 1 |
| 2    | Correct polar diagram              | 1 |
| 3    | Correct funicular polygon          | 2 |
| 4    | Correct value of $R_L$ and $R_R$   | 1 |
| 5    | Correct units shown                | 1 |
| (ii) |                                    |   |
| 6    | Correct value of members magnitude | 3 |
| 7    | Correct nature of members          | 3 |
| 8    | Correct shape of vector diagram    | 2 |
| 9    | Correct labels                     | 1 |

Load line scale: 10mm = 100 kN

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