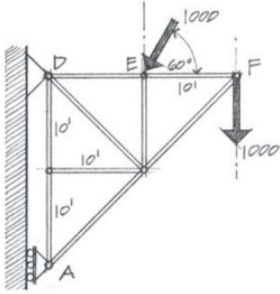
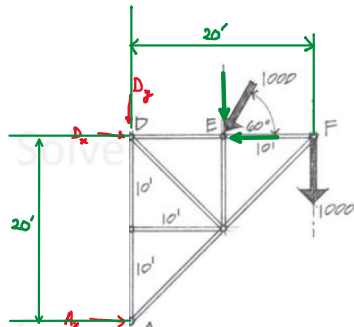


## Trusses Question Solutions

2. Determine the support reactions for the truss at joints A and D



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$$+\circlearrowleft \sum M_A = 0 :$$

$$(1000 \times 20') + (1000 \sin 60^\circ \times 10') - (1000 \cos 60^\circ \times 20') + (D_y \times 20') = 0$$

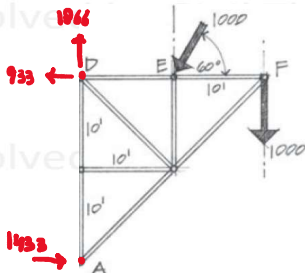
$$\Rightarrow D_y = -933$$

$$+\rightarrow \sum F_x = 0 :$$

$$A_x + D_x - 1000 \cos 60^\circ = 0 \Rightarrow A_x - 933 - 1000 \cos 60^\circ = 0 \Rightarrow A_x = 1433$$

$$+\uparrow \sum F_y = 0 :$$

$$-D_y - 1000 \sin 60^\circ - 1000 = 0 \Rightarrow D_y = -1846$$



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