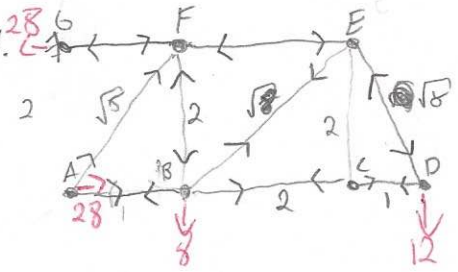
14.



$\sum M_A = 0, \quad -8(1) - 12(4) + F_{Gx}(2)$

$F_{Gx} = 28$

Joint G

$\sum F_x = 0, \quad -28 + F_{GF}$

$F_{GF} = 28 \ (T)$

Joint D

$\sum F_y = 0 \quad -12 + \frac{2}{\sqrt{5}} F_{DE}$

$F_{DE} = 13.4164 \ (T)$

$\sum F_x = 0, \quad -\frac{1}{\sqrt{5}}(13.4164) - F_{CD} = 0$

$F_{CD} = 6 \ (C)$

Joint C

$\sum F_x = 0, \quad -6 - F_{CB}$

$F_{CB} = 6 \ (C)$

$\sum F_y = 0, \quad \therefore F_{CE} = 0$

Joint E

$\sum F_y = 0, \quad -\frac{2}{\sqrt{5}}(13.4164) - \frac{2}{\sqrt{8}}(F_{EB}$ $\sum F_y = 0, \quad \frac{1}{\sqrt{5}} \cdot 13.4164 + \frac{2}{\sqrt{8}}(16.97056) - F_{EF} = 0$

$F_{EB} = 16.97056 \ (C)$ $F_{EF} = 18 \ (T)$

Joint B

$\sum F_y = 0, \quad -8 - 2/\sqrt{8}(16.97056) + F_{BF}$

$F_{BF} = 20 \ (T)$

$\sum F_x = 0, \quad -6 - 16.97056\left(\frac{2}{\sqrt{8}}\right) - F_{BA} = 0$

$F_{BA} = 18 \ (C)$

Joint A $\sum F_x = 0,$ $28 + 18 + 1/\sqrt{5} F_{FA} = 0$

$F_{FA} = 22.4 \ (C)$