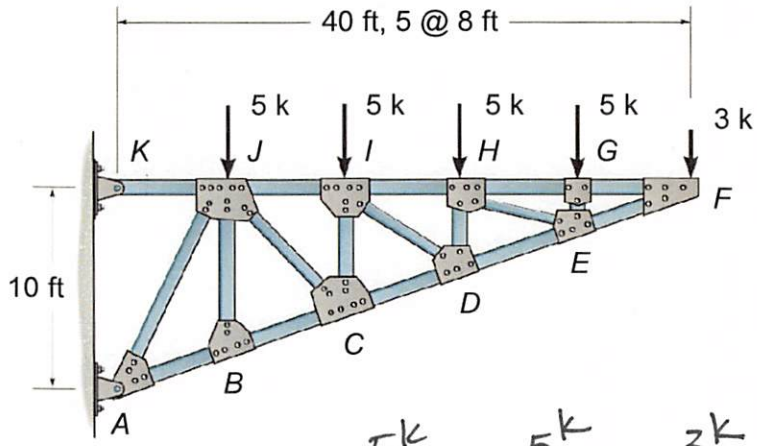
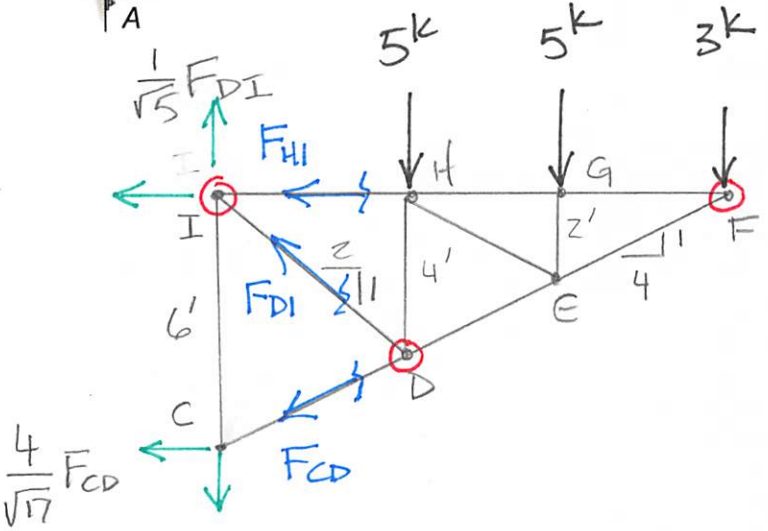
CIVL 3121 Quiz #3 F26 Name: _____

Determine the forces in members *CD*, *DI*, and *HI*.





$$\circlearrowleft +\Sigma M_D = 0 = F_{HI}(4') - 5^k(8') - 3^k(16') \qquad \underline{F_{HI} = 22^k}$$

$$\circlearrowleft +\Sigma M_I = 0 = -\frac{4}{\sqrt{17}}F_{CD}(6') - 5^k(8'+16') - 3^k(24')$$

$$\underline{F_{CD} = -32.98^k}$$

$$\circlearrowleft +\Sigma M_F = 0 = -\frac{1}{\sqrt{5}}F_{DI}(24') + 5k(8'+16') \qquad \underline{F_{DI} = 11.18^k}$$