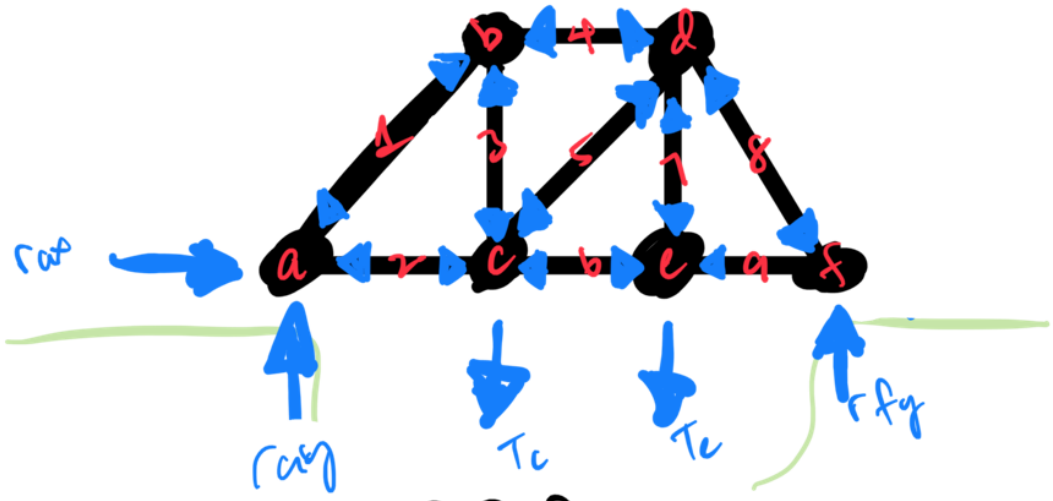
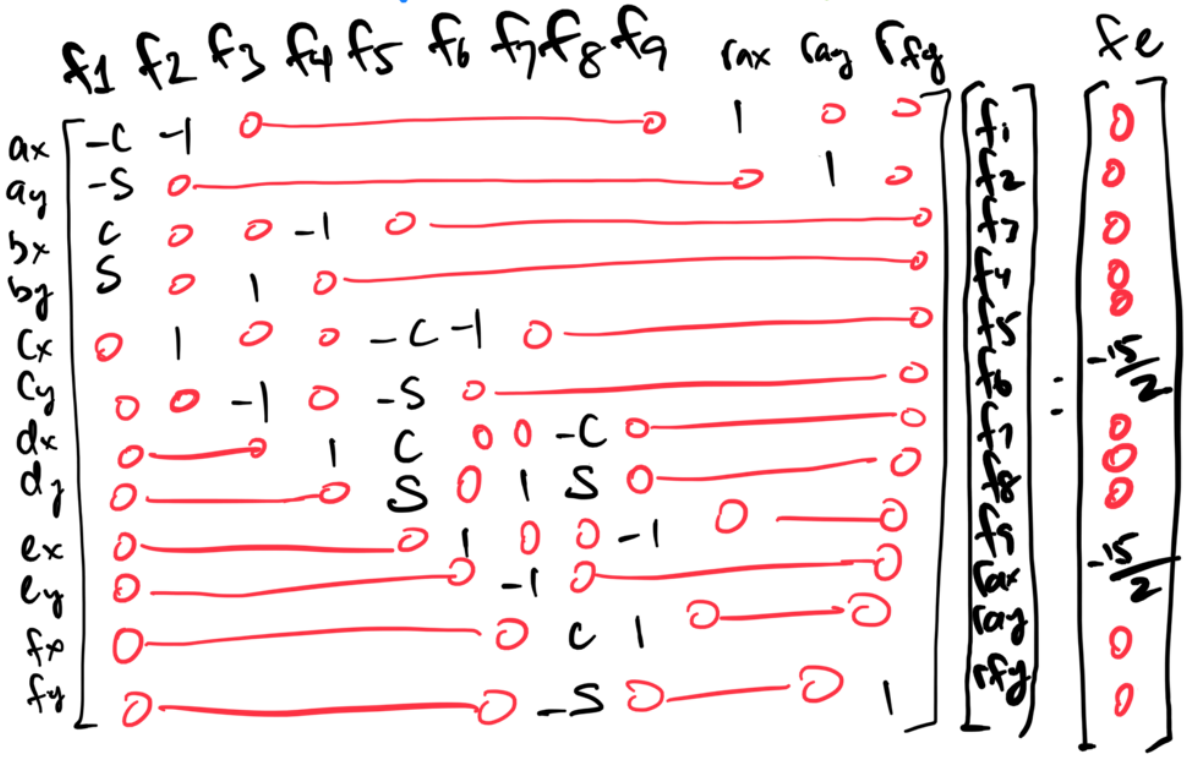
HW3 Problem 3





How will bridge handle...

...5 ton truck?

15 ton truck?

Bridge sustains a 15 ton truck. Beams 1, 8 have most stress w/ 8 tons of tension on each. But this is below their 11 ton failure threshold.

20 ton truck?

The bridge can also sustain a 20 ton truck. However ... it begins to fail at 22 tons.

22 ton truck?

The bridge CANNOT sustain a 22 ton truck. Both beams 1, 8 fail due to excessive tension of > 11 tons.