Tips for HW33

* For turbine you want to find specific work (W\_dot / m\_dot). We know that this is h1 – h2. But since there is no phase change we can approximate this as cp\_mix­\*(T1-T2)
	+ To find T2 you can use T2 = T1 \* (P2/P1)(k-1)/k
	+ However you don’t know k. To find k you will need:
		- Find cp­\_bar = Σ yi \* c­p\_bar\_i
		- Same is true for cv
		- k = cp­\_bar/cv\_bar
	+ cp\_mix = cp\_bar/Mmix
	+ cv­\_bar = 25.6 kJ/kmol-K
* Intermediate values for 33-2
	+ See molar composition of dry air from values in table of example 12.2 in textbook
	+ Pw = Psat(20°C) = 0.0023 MPa
	+ yw = 0.023
	+ Pm = 0.101 MPa
	+ Pair = 0.0989 MPa
	+ PN2 = yN2­\*Pair
	+ yO2 = 0.205
	+ wCO2 = 0.0004

FE Questions

* 33-FE1 is d)
* 33-FE2 is c)