

worked w/ hail

	I	Q
QA	2, 2	2, 2
QB	2, 2	2, 2
IA	4, 2	1, 3
IB	3, 4	1, 3

a) $V_1(\sigma_1, I)$ for $\sigma_1 = (1/4, 1/4, 1/4, 1/4)$

$$1/4(2 + 2 + 4 + 3) = 1/2 + 1/2 + 1 + 3/4 = 11/4 \text{ or } 2.75$$

b) $V_2(\sigma_1, Q)$ for $\sigma_1 = (1/8, 1/4, 1/4, 3/8) = (1/8, 2/8, 2/8, 3/8)$

$$2/8 + 4/8 + 6/8 + 9/8 = 21/8$$

c) $V_1(\sigma_1, \sigma_2)$ for $\sigma_1 = (1/4, 1/4, 1/4, 1/4)$, $\sigma_2 = (1/3, 2/3)$

	I	Q
QA	1/12	2/12
QB	1/12	2/12
IA	1/12	2/12
IB	1/12	2/12

$$2/12 + 2/12 + 4/12 + 3/12 + 4/12 + 4/12 + 2/12 + 2/12 = 23/12$$

d) $V_1(\sigma_1, \sigma_2)$ for $\sigma_1 = (0, 1/3, 1/6, 1/2)$, $\sigma_2 = (2/3, 1/3)$

	I	Q
QA	0	0
QB	2/18	2/18
IA	2/18	1/18
IB	6/18	3/18

$$0 + 8/18 + 8/18 + 18/18 + 0 + 4/18 + 1/18 + 3/18 = 42/18 = 7/3$$