$$R^+_{i\_,j\_} := \mathbb{E}\big[1,\ b_i\, c_j,\ u_i\, w_j,$$
$$-c_i\, (t_i - 1)^2 \big/ 2 - c_i^2\, (t_i - 1)^2 \big/ 2 + c_i\, c_j\, \big(t_j^2 - t_i - 2\big) \big/ 2 -$$
$$c_j\, u_i\, w_i \,/\, 2 + c_i\, (1 - t_i)\, u_i\, w_i - u_i^2\, w_i^2 \big/ 2 + u_i\, w_j + c_j\, t_i\, u_i\, w_j \,/\, 2 +$$
$$c_i\, (t_i - 2)\, t_i\, u_i\, w_j + c_i\, (1 + t_j)\, u_j\, w_j \,/\, 2 + (t_i - 1)\, u_i^2\, w_i\, w_j -$$
$$(t_i - 2)\, t_i\, u_i^2\, w_j^2 \big/ 2 \big];$$

$$R^-_{i\_,j\_} := \mathbb{E}\big[1,\ -b_i\, c_j,\ -t_i^{-1}\, u_i\, w_j,$$
$$c_i\, (t_i - 1)^2 \big/ 2 + c_i^2\, (t_i - 1)^2 \big/ 2 + c_i\, c_j\, \big(2 + t_i - t_j^2\big) \big/ 2 +$$
$$c_j\, u_i\, w_i \,/\, 2 + c_i\, (t_i - 1)\, u_i\, w_i + u_i^2\, w_i^2 \big/ 2 + \big(1 - t_i^{-1}\big)\, u_i\, w_j \,/\, 2 +$$
$$c_i\, \big(2\, t_i - 5 + 3\, t_i^{-1}\big)\, u_i\, w_j \,/\, 2 + c_j\, \big(t_i^{-1} + 1 - t_i^{-1}\, t_j^2\big)\, u_i\, w_j \,/\, 2 -$$
$$c_i\, (t_j + 1)\, u_j\, w_j \,/\, 2 + \big(2 - 3\, t_i^{-1}\big)\, u_i^2\, w_i\, w_j \,/\, 2 +$$
$$\big(1 + 2\, t_i^{-2} - 3\, t_i^{-1}\big)\, u_i^2\, w_j^2 \big/ 2 - t_i^{-1}\, (1 + t_j)\, u_i\, u_j\, w_j^2 \big/ 2 \big];$$

$$ur_{i\_} := \mathbb{E}\big[t_i^{-1/4},\ 0,\ 0,\ c_i\, t_i \,/\, 4 + u_i\, w_i \,/\, 8 \big];$$
$$nr_{i\_} := \mathbb{E}\big[t_i^{1/4},\ 0,\ 0,\ -c_i\, t_i^3 \big/ 4 - t_i^2\, u_i\, w_i \,/\, 8 \big];$$
$$ul_{i\_} := \mathbb{E}\big[t_i^{1/4},\ 0,\ 0,\ c_i\, t_i\, (4 + t_i) \,/\, 4 - t_i^2\, u_i\, w_i \,/\, 8 \big];$$
$$nl_{i\_} := \mathbb{E}\big[t_i^{-1/4},\ 0,\ 0,\ -c_i\, \big(1 + 4\, t_i^{-1}\big) \,/\, 4 + u_i\, w_i \,/\, 8 \big];$$