$$A_6^{\mathrm{BCJ},2} = + \underbrace{\mathcal{O}(p^2)}_{\mathrm{non-Z \ combination}} + \underbrace{\mathcal{O}(p^6)}_{\mathrm{non-Z \ combination}} + \underbrace{\mathcal{O}(p^6)}_{\mathrm{non-Z \ combination}} + \underbrace{\mathcal{O}(p^8)}_{\mathrm{non-Z \ c$$