

We examine the splitting number $\mathfrak{s}(\mathbf{B})$ and the reaping number $\mathfrak{r}(\mathbf{B})$ of quotient Boolean algebras $\mathbf{B} = \mathcal{P}(\omega)/\mathcal{I}$ over F_σ ideals and analytic P-ideals. For instance we prove that under Martin's axiom $\mathfrak{s}(\mathcal{P}(\omega)/\mathcal{I}) = \mathfrak{c}$ for all F_σ ideals and analytic P-ideals with BW property (and one cannot drop the assumption about BW property). On the other hand we prove that under Martin's axiom $\mathfrak{r}(\mathcal{P}(\omega)/\mathcal{I}) = \mathfrak{c}$ for all F_σ ideals and analytic P-ideals (in this case we do not need the assumption about BW property). We also provide applications of these characteristics to the ideal convergence of sequences of real-valued functions defined on reals.