Important Formulas (useful for exam!)

$$F^*(\beta, p, e_{min}, e_{max})$$

- Number of positive values: $(\beta - 1) \cdot \beta^{p-1} \cdot (e_{max} - e_{min} + 1)$
- Number of values (positive and negative): $2 \cdot (\#positive\ values)$
- Biggest value: $(\beta^p - 1) \cdot \beta^{e_{max}-p+1}$
- Smallest (positive) value: $\beta^{e_{min}}$

Example F*(2, 3, – 1, 2):

- Number of positive values: $(2 - 1) \cdot 2^{3-1} \cdot (2 - (-1) + 1) = \mathbf{16}$
- Number of values (positive and negative): $2 \cdot (16) = \mathbf{32}$
- Biggest value: $\left(2^3 - 1\right) \cdot 2^{2-3+1} = \mathbf{7}$
- Smallest (positive) value: $2^{-1} = \mathbf{\frac{1}{2}}$