The relative frequencies stay constant as the degree grows from d to kd:

$$\frac{P(kd)}{P(d)} = \frac{c \cdot k^{-\gamma} d^{-\gamma}}{c \cdot d^{-\gamma}}$$
$$= k^{-\gamma}.$$

This is true regardless of the degree d we start with:

$$\frac{P(2)}{P(1)} = \frac{P(20)}{P(10)} = \frac{P(200)}{P(100)} = \dots$$

Best seen when graphing the degree distribution…

…on a *log-log scale*, for readability: the degree distribution of a scale-free network appears as a straight line with slope $-\gamma$.