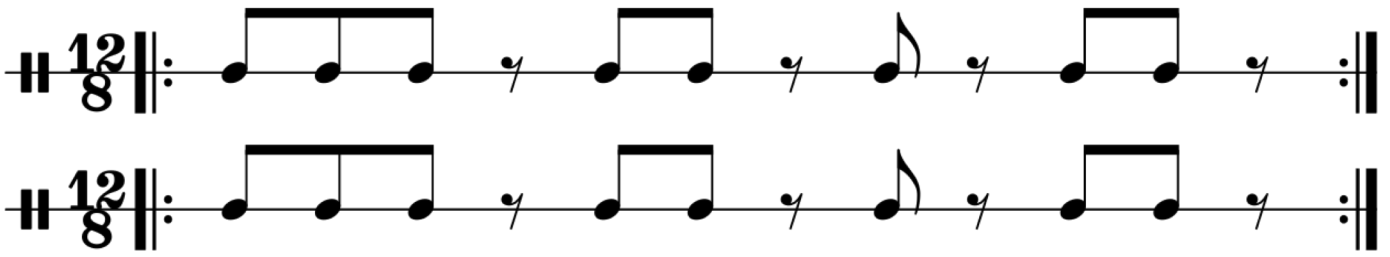

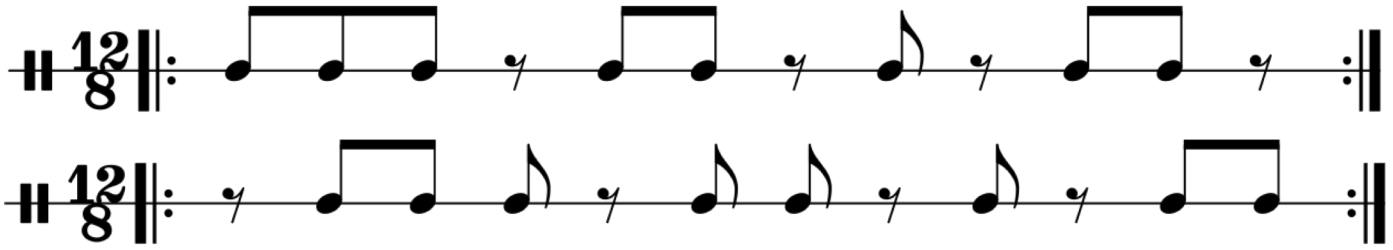

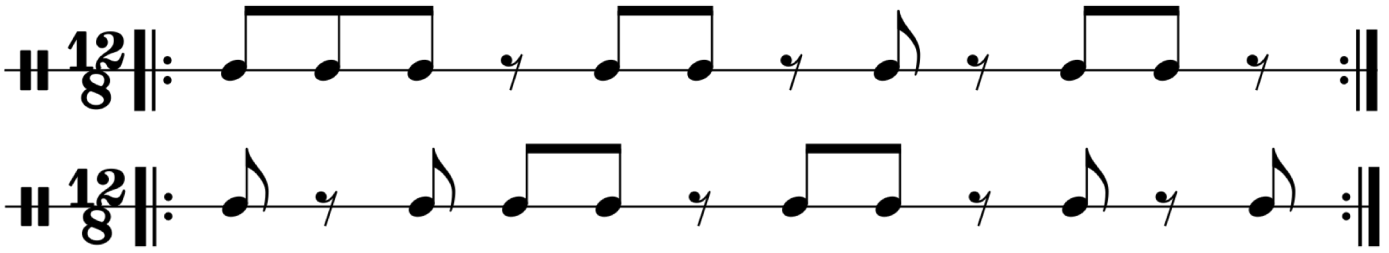

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$$\frac{2^p - 2}{p}$$

$$\frac{2^p - 2^1}{p}$$

$$\frac{2^4 - 2^1 - (2^2 - 2^1)}{4} = \frac{2^4 - 2^2}{4}$$

$$\frac{2^6 - 2^1 - (2^3 - 2^1) - (2^2 - 2^1)}{6}$$

$$= \frac{2^6 - 2^3 - 2^2 + 2^1}{6}$$

$\mu(n)$

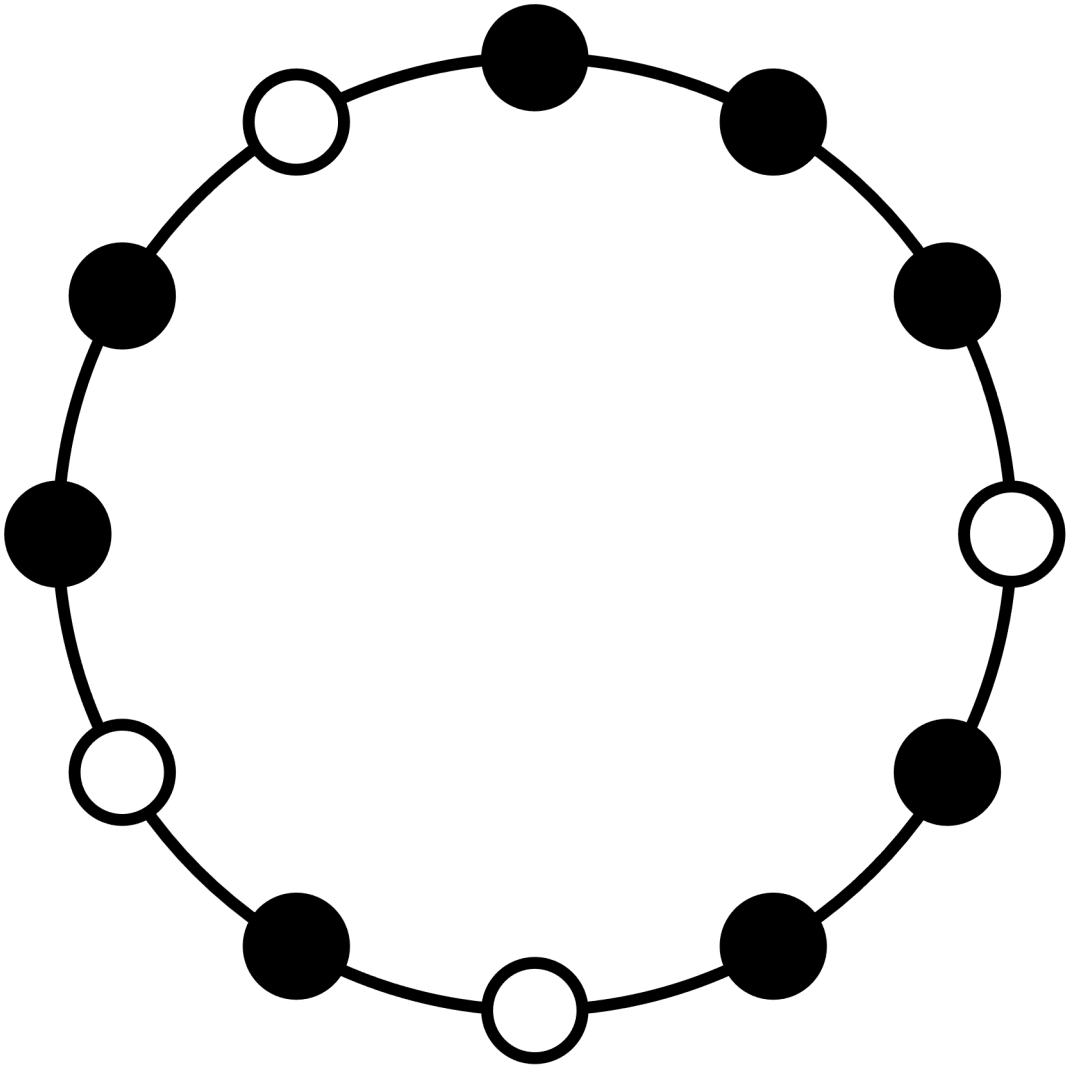
= 0 if any factor is a square

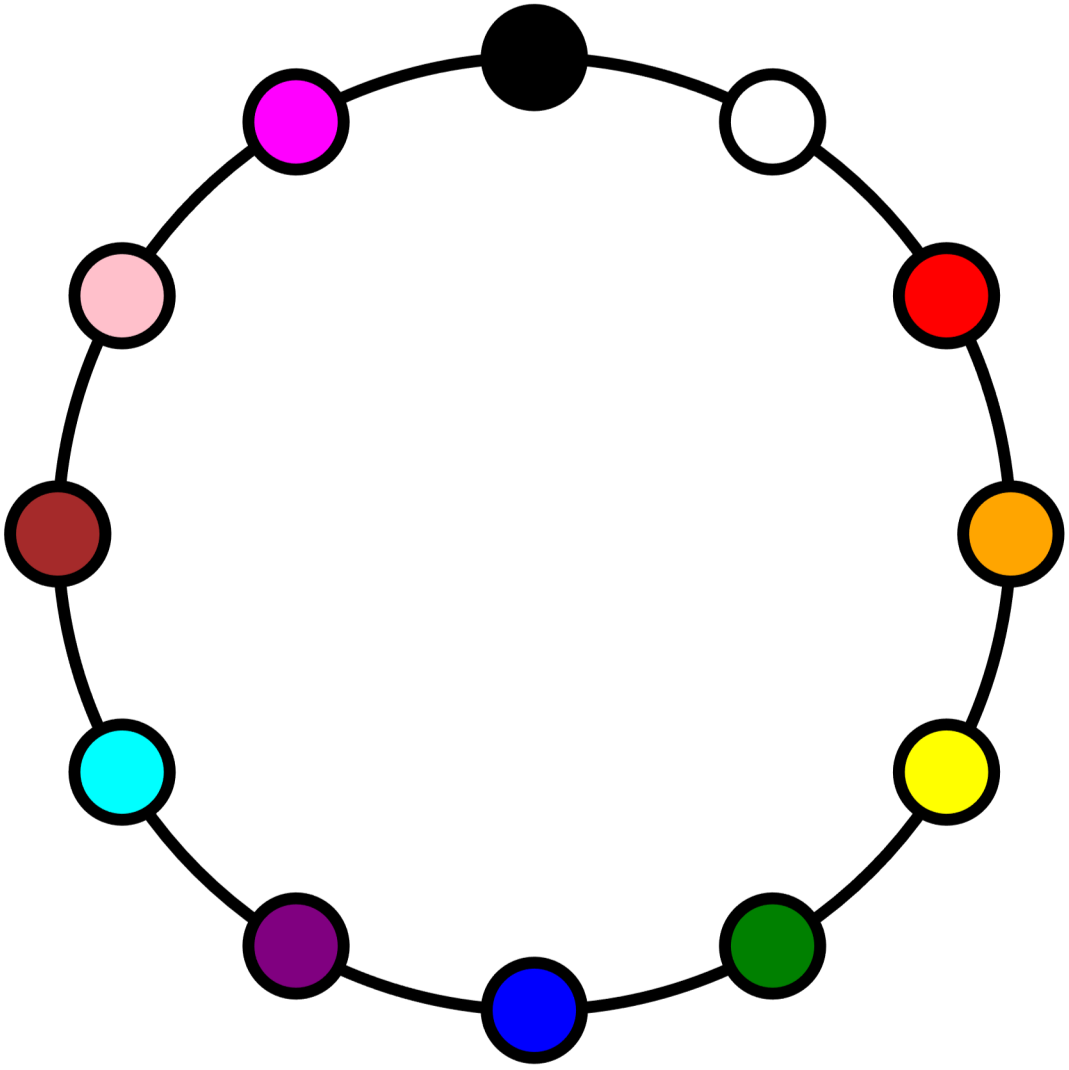
= +1 if n has an even number of prime factors

= -1 if n has an odd number of prime factors

$$\frac{1}{n}\sum_{d|n}\mu\left(\frac{n}{d}\right)2^{d}$$

$$\frac{1}{12}\sum_{d|12}\mu\left(\frac{12}{d}\right)2^{d}=335$$





$$M(a,n) = \frac{1}{n}\sum_{d|n} \mu\left(\frac{n}{d}\right) a^d$$

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