## Relations $\beta=\mathbf{f}(\tau)$ in OEIS <br> for squares $\mathbf{A} 000290$

| Relations <br> $\boldsymbol{\beta}=\mathbf{f}(\boldsymbol{\tau})$ | Sequences <br> of <br> Integers in <br> OEIS | Squares of <br> Primes <br> A001248 <br> $\tau\left(\mathrm{p}^{2}\right)=3$ | Squares of <br> Composites <br> A062312 $\backslash\{1\}$ <br> $\tau(\mathrm{m})>=5$ | $1^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| $\beta(\mathrm{~m})=(\tau(\mathrm{m})-3) / 2$ | A 326707 | $\beta\left(\mathrm{p}^{2}\right)=0: \mathrm{A} 326708$ | $\beta "(\mathrm{~m})=0: \mathrm{A} 326709$ | X |
| $\beta(\mathrm{m})=(\tau(\mathrm{m})-1) / 2$ | A 326710 | $\beta\left(\mathrm{p}^{2}\right)=1: \quad\{121\}$ | $\beta "(\mathrm{~m})=1: \mathrm{A} 326711$ | $\{1\}$ |

The sequences in OEIS about relations $\beta=\mathrm{f}(\tau)$ for squares are detailed in this array.

## Definitions:

$\tau(\mathrm{n})$ is the number of divisors of the integer n : A000005.
$\beta(n)=\beta^{\prime}(n)+\beta^{\prime \prime}(n)$ is the number of Brazilian representations of $n$ : A220136.
$\beta^{\prime}(\mathrm{n})$ is the number of representations of n of the form $\mathrm{aa}_{\mathrm{b}}$, but not $11_{\mathrm{b}}$.
$\beta^{\prime \prime}(\mathrm{n})$ is the number of representations of n with at least three digits. These integers with such a representation are in the sequence A167782.

When $m>1$ is square, $\beta^{\prime}(m)=(\tau(m)-3) / 2$, so always $\beta(m)>=(\tau(m)-3) / 2$.

