## Relations $\beta=\mathbf{f}(\tau)$ in OEIS

## for composites non-squares

| Relations $\beta=\mathbf{f}(\tau)$ | Sequences of integers in OEIS | $\begin{gathered} \text { Non-oblongs } \\ \text { A308874 } \\ \beta^{\prime}(\mathrm{n})=\tau(\mathrm{n}) / 2-1 \end{gathered}$ | $\begin{gathered} \text { Oblongs } \\ \text { A002378 } \\ \beta^{\prime}(\mathrm{n})=\tau(\mathrm{n}) / 2-2 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| $\beta(\mathrm{n})=\tau(\mathrm{n}) / 2-2$ | A326378 | X | $\beta "(\mathrm{n})=0:$ A326378 |
| $\beta(\mathrm{n})=\tau(\mathrm{n}) / 2-1$ | A326379 | $\beta \times(\mathrm{n})=0: A 326386$ | $\beta \prime \prime(\mathrm{n})=1:$ A326384 |
| $\beta(\mathrm{n})=\tau(\mathrm{n}) / 2$ | A326380 | $\beta \prime \prime(\mathrm{n})=1: A 326387$ | $\beta "(\mathrm{n})=2:$ A326385 |
| $\beta(\mathrm{n})=\tau(\mathrm{n}) / 2+1$ | A326381 | $\beta \prime$ (n) = $2: A 326388$ | $\begin{gathered} \beta "(\mathrm{n})=3 \text { in A309062 } \\ \text { with } \beta "(\mathrm{n})>=3 \end{gathered}$ |
| $\beta(\mathrm{n})=\tau(\mathrm{n}) / 2+2$ | A326382 | $\beta \prime \prime(\mathrm{n})=3:$ A326389 | $\begin{gathered} \beta_{" \prime}^{\prime \prime}(\mathrm{n})=4 \text { in A309062 } \\ \text { with } \beta^{\prime \prime}(\mathrm{n})>=3 \end{gathered}$ |
| $\beta(\mathrm{n})=\tau(\mathrm{n}) / 2+3$ | A326383 | $\begin{gathered} \beta^{\prime \prime}(\mathrm{n})=4 \text { in } A 326705 \\ \text { with } \beta^{\prime \prime}(\mathrm{n})>=4 \end{gathered}$ | $\begin{gathered} \beta "(\mathrm{n})=5 \text { in A309062 } \\ \text { with } \beta "(\mathrm{n})>=3 \end{gathered}$ |
| $\begin{gathered} \beta(\mathrm{n})=\tau(\mathrm{n}) / 2+\mathrm{k}, \\ \mathrm{k}>=4 \end{gathered}$ | A326706 | $\begin{gathered} \beta^{\prime \prime}(\mathrm{n})>=5 \text { in A326705 } \\ \text { with } \beta "(\mathrm{n})>=4 \end{gathered}$ | $\begin{gathered} \beta "(n)>=6 \text { in A309062 } \\ \text { with } \beta "(n)>=3 \end{gathered}$ |

The sequences in OEIS about relations $\beta=\mathrm{f}(\tau)$ 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.
$\beta^{\prime}(n)$ is the number of representations of $n$ type $a a_{b}$, but not $11_{b}$.
$\beta$ " $(\mathrm{n})$ is the number of representations with at least three digits. These integers with such a representation are in the sequence A167782.

Example: $42=6 * 7=222 \_4=33 \_13=22 \_20$.
$\tau(42)=8$.
$\beta(42)=3, \beta^{\prime}(42)=2, \beta^{\prime \prime}(42)=1$.
$\beta^{\prime}(42)=\tau(42) / 2-2$ and $\beta(42)=\tau(42) / 2-1$.

