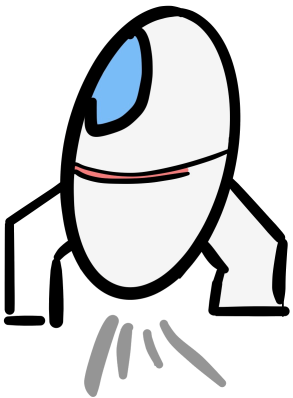
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|  | **Potenzen als Kurzschreibweise**  Wie oft muss man ein Blatt Papier (Papierdicke 1 mm) falten, damit es so hoch ist wie die Entfernung von Erde zu Mond? |
| |  |  |  |  | | --- | --- | --- | --- | | Anzahl Faltungen | Anzahl Papierschichten | Berechnungsvorschrift\* | \* Beschreiben Sie in Worten und mit einem Term, wie man die Anzahl der Papierschichten bestimmen kann, wenn man die Anzahl der Faltungen kennt. | | 0 | 1 |  | | 1 | 2 |  | | 2 | 4 |  | | 3 | 8 |  | | 4 | 16 |  | | 5 | 32 |  | | … | … | … | | |

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| Produkte aus lauter gleichen Faktoren kann man als Potenz schreiben:  wobei 2 die Basis bzw. Grundzahl ist und 5 der Exponent bzw. Hochzahl.  Es gilt: und  Diese Schreibweise gilt auch für rationale Zahlen als Basis:    Es gilt: und und |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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Entfernung von Erde bis zum Mond: 384.400 km

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