**Numbers, Mathematical Symbols & Operations**

**1. Read and speak.**

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_001_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\001.gif | | ten thousand |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_002_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\002.gif | one to five |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_003_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\003.gif | (UK) - nought (naught) point (decimal) twenty-eight/ two eight / (US) – zero point two eight |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_004_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\004.gif | two point (decimal) five nought/ zero |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_005_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\005.gif | a (one) half |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_006_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\006.gif | a (one) third |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_007_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\007.gif | a (one) quarter, a (one) fourth |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_008_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\008.gif | a (one) fifth |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_009_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\009.gif | six and 3 fifths |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_010_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\010.gif | ten to the power of one; ten to the power one; ten to the first power; ten to the first |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_011_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\011.gif | ten to the second; ten squared |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_012_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\012.gif | ten to the third; ten cubed |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_013_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\013.gif | ten to the power of infinity |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_014_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\014.gif | ten to the minus first (power); ten to the power minus one |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_015_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\015.gif | ten to the power of two thirds |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_016_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\016.gif | a to the nth (power) |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_017_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\017.gif | a to the minus nth (power); the reciprocal of an (a to the nth power) |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_018_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\018.gif | a to the power of minus three x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_019_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\019.gif | a sub n; a subscript n |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_020_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\020.gif | a pre-sub n; a pre-subscript n |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_025_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\025.gif | a plus b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_026_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\026.gif | a minus b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_029_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\029.gif | a divided by b; a over b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_030_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\030.gif | a divides b; the ratio of a to b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_041_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\041.gif | a is not less than b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_042_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\042.gif | a is less than or equal to b; a is not greater than b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_043_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\043.gif | a is identical with b; a is always equal to b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_044_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\044.gif | a is approximately equal to b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_071_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\071.gif | square root of the sum of a plus b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_072_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\072.gif | the nth root of d over g equals t |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_073_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\073.gif | logarithm (decadic or common) |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_074_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\074.gif | natural logarithm |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_075_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\075.gif | common logarithm of x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_076_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\076.gif | natural logarithm of x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_077_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\077.gif | logarithm to the base b |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_079_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\079.gif | logarithm of three point one four two is nought point four nine seven two |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_080_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\080.gif | logarithm of m times n in parentheses to the base a equals logarithm of m to the base a plus logarithm of n to the base a |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_081_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\081.gif | logarithm of m over n to the base of a equals logarithm of m to the base a minus logarithm of n to the base a |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_082_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\082.gif | logarithm of the rth root of m to the base a is one rth times logarithm of m to the base a |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_083_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\083.gif | logarithm of the sine of the angle β |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_084_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\084.gif | sine x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_085_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\085.gif | cosine x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_086_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\086.gif | the (first) derivative of the sine of x equals the cosine of x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_102_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\102.gif | differential of y |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_103_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\103.gif | infinity differential of x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_104_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\104.gif | an increment of y; delta y |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_105_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\105.gif | dy by dx; the derivative of y = f(x) with respect to x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_112_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\112.gif | indefinite integral |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_114_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\114.gif | the integral of small x dx equals capital f of x, plus capital c, if capital f prime of x is equal to small f of x |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_115_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\115.gif | determinant of a square matrix capital a |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_116_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\116.gif | the determinant whose element in the ith row and jth column is a subscript of ij |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_118_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\118.gif | the matrix whose elements in the ith row and jth column is a subscript ij |

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| [DL](https://webcourses.htwk-leipzig.de/xte/media/214/zeichen_123_48kbit_audio.mp3) | H:\7200+7400 C1\HTWK Leipzig - e-Xplore Technical English-Dateien\123.gif | transpose of the matrix A |

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