

Power Table

0 1 2 3 4 5 6 7

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So what must the value of "x" be in order for this to be true?

$$6^x = 6^3$$

What about this?

$$6^{x+2} = 6^5$$

What about this?

$$6^{10} = 6^{2x}$$

BASIC EXPONENTIALS: *To work the following, set the exponents equal to each other and solve.*

$$7^{3x+8} = 7^{2x-5}$$

$$5^{-2x} = 5^{3x-10}$$

A LITTLE LESS BASIC EXPONENTIALS: *To work these, you will need to rewrite the terms using the same base, then solve.*

$$2^{2x} = 8^4$$

$$3^{x+3} = 27^2$$

$$125^{3x} = 5^{4x+10}$$

NOT SO BASIC EXPONENTIALS: *Rewrite both sides using the same base, then solve for x.*

$$8^{2x} = 16^3$$

$$25^{x+2} = 625^{2x-10}$$