## Baseball Mitt Binary Code Alphabet Equations and Riddles

 Created by Deirdre Smith of JDaniel4'sMomName:


Binary Number Counting on a Baseball Mitt


## Name:



Example: S is the nineteenth of the alphabet.
Its lowercase binary code is 01110011. Its number equation is be $16+0+0+2+1=19$

Show the the last five digits of each binary code, the equation, and number for each letter below.

| $\mathrm{A}=1$ | $\mathrm{~B}=2$ | $\mathrm{C}=3$ | $\mathrm{D}=4$ | $\mathrm{E}=5$ | $\mathrm{~F}=6$ | $\mathrm{G}=7$ | $\mathrm{H}=8$ | $\mathrm{I}=9$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{~J}=10$ | $\mathrm{~K}=11$ | $\mathrm{~L}=12$ | $\mathrm{M}=13$ | $\mathrm{~N}=14$ | $\mathrm{O}=15$ | $\mathrm{P}=16$ | $\mathrm{Q}=17$ | $\mathrm{R}=18$ |
| $\mathrm{~S}=19$ | $\mathrm{~T}=20$ | $\mathrm{U}=21$ | $\mathrm{~V}=22$ | $\mathrm{~W}=23$ | $\mathrm{X}=24$ | $\mathrm{Y}=25$ | $\mathrm{Z}=26$ |  |

$c$ is $\qquad$ and _ +_ +_ +_ $+_{-}$

0 is $\qquad$ and _ +_ +_ +_+_
$d$ is $\qquad$ and $+_{-}+_{+}^{+}+_{-}=$
$e$ is $\qquad$ and $+_{-1}+_{-}+_{-}$

| Letters of the Alphabet in Binary Code |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| $\mathrm{A}=01100001$ | $\mathrm{G}=01100111$ | $\mathrm{M}=01101101$ | $\mathrm{~S}=01110011$ | $\mathrm{Y}=01111001$ |  |
| $\mathrm{~B}=01100010$ | $\mathrm{H}=01101000$ | $\mathrm{~N}=01101110$ | $\mathrm{~T}=01110100$ | $\mathrm{Z}=01111010$ |  |
| $\mathrm{C}=01100011$ | $\mathrm{I}=01101001$ | $\mathrm{O}=01101111$ | $\mathrm{U}=01110101$ |  |  |
| $\mathrm{D}=01100100$ | $\mathrm{~J}=01101010$ | $\mathrm{P}=01110000$ | $\mathrm{~V}=01110110$ |  |  |
| $\mathrm{E}=01100101$ | $\mathrm{~K}=01101011$ | $\mathrm{Q}=01110001$ | $\mathrm{~W}=01110111$ |  |  |
| $\mathrm{~F}=01100110$ | $\mathrm{~L}=01101100$ | $\mathrm{R}=01110010$ | $\mathrm{X}=01111000$ |  |  |

## Name:



## Binary Code Alphabet Letter Equations

Example: S is the nineteenth of the alphabet. Its lowercase binary code is 01110011. Its number equation is be $16+0+0+2+1=19$

Show the the last five digits of each binary number, the equation, and number for each letter
below.
$b$ is $\qquad$ and _$++_{-}+_{-}+_{-}=$
$i$ is $\qquad$ and ${ }^{+}+_{+}+_{+}^{+}{ }_{+}=$
$n$ is $\qquad$ and ${ }^{+}{ }_{-}^{+}{ }^{+}+_{+}^{+}=$

| $\mathrm{A}=1$ | $\mathrm{~B}=2$ | $\mathrm{C}=3$ | $\mathrm{D}=4$ | $\mathrm{E}=5$ | $\mathrm{~F}=6$ | $\mathrm{G}=7$ | $\mathrm{H}=8$ | $\mathrm{I}=9$ |
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| $\mathrm{~S}=19$ | $\mathrm{~T}=20$ | $\mathrm{U}=21$ | $\mathrm{~V}=22$ | $\mathrm{~W}=23$ | $\mathrm{X}=24$ | $\mathrm{Y}=25$ | $\mathrm{Z}=26$ |  |


| Letters of the Alphabet in Binary Code |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\mathrm{A}=01100001$ | G=01100111 | $\mathrm{M}=01101101$ | S= 01110011 | $\mathrm{Y}=01111001$ |
| B=01100010 | $\mathrm{H}=01101000$ | $\mathrm{N}=01101110$ | $\mathrm{T}=01110100$ | Z=01111010 |
| C=01100011 | $\mathrm{I}=01101001$ | O=01101111 | U=01110101 |  |
| D=01100100 | $\mathrm{J}=01101010$ | $\mathrm{P}=01110000$ | $\mathrm{V}=01110110$ |  |
| $\mathrm{E}=01100101$ | K=01101011 | $Q=01110001$ | W=01110111 |  |
| F=01100110 | L=01101100 | R=01110010 | X=01111000 |  |
|  |  |  |  |  |

$u$ is
 and ${ }_{-}^{+}+_{-}+_{-}^{+}=$
$m$ is $\qquad$ and _ ${ }^{+}++_{+}^{+}+$
$a$ is $\qquad$ and _ $+_{-}+_{-}+_{-}^{+}=$ $r$ is $\qquad$ and _ +_+_+_+_=
y is $\_----$and $+_{-}+_{-}+_{-}^{+}=$
$b$ is $\qquad$ and $+_{-}+_{-}+_{-}^{+}=$
$e$ is $\qquad$ and ${ }_{-}+_{-}+_{-}+_{-}+{ }_{-}=$
$r$ is $\qquad$ and _$+_{-}+_{-}+_{-}^{+}=$

Name:


Example: $S$ is the nineteenth of the alphabet. Its lowercase binary code is 01110011 . Its number equation is be $16+0+0+2+1=19$

Place the sum at the end of the equation above eact binary byte to find the answer to each riddle. Show the the letter above each sum.

## Binary Code Math Riddles

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{~J}=10$ | $\mathrm{~K}=11$ | $\mathrm{~L}=12$ | $\mathrm{M}=13$ | $\mathrm{~N}=14$ | $\mathrm{O}=15$ | $\mathrm{P}=16$ | $\mathrm{Q}=17$ | $\mathrm{R}=18$ |
| $\mathrm{~S}=19$ | $\mathrm{~T}=20$ | $\mathrm{U}=21$ | $\mathrm{~V}=22$ | $\mathrm{~W}=23$ | $\mathrm{X}=24$ | $\mathrm{Y}=25$ | $\mathrm{Z}=26$ |  |


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| $\mathrm{D}=01100100$ | $\mathrm{~J}=01101010$ | $\mathrm{P}=01110000$ | $\mathrm{~V}=01110110$ |  |
| $\mathrm{E}=01100101$ | $\mathrm{~K}=01101011$ | $\mathrm{Q}=01110001$ | $\mathrm{~W}=01110111$ |  |
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What are a baseball players favorite animals?

After a trip, where do baseball players want to go?



Alphabet Letters Number Order Chart

| A | B | C | D | E | F | G | H | I |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| J | K | L | M | N | O | P | Q | R |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| S | T | U | V | W | X | Y | Z |  |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |  |

## Binary Code for Lowercase Alphabet Letters

| Letters of the Alphabet in Binary Code |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $A=01100001$ | $G=01100111$ | $\mathrm{M}=01101101$ | $\mathrm{~S}=01110011$ | $\mathrm{Y}=01111001$ |
| $\mathrm{~B}=01100010$ | $\mathrm{H}=01101000$ | $\mathrm{~N}=01101110$ | $\mathrm{~T}=01110100$ | $\mathrm{Z}=01111010$ |
| $\mathrm{C}=01100011$ | $\mathrm{I}=01101001$ | $\mathrm{O}=01101111$ | $\mathrm{U}=01110101$ |  |
| $\mathrm{D}=01100100$ | $\mathrm{~J}=01101010$ | $\mathrm{P}=01110000$ | $\mathrm{~V}=01110110$ |  |
| $\mathrm{E}=01100101$ | $\mathrm{~K}=01101011$ | $\mathrm{Q}=01110001$ | $\mathrm{~W}=01110111$ |  |
| $\mathrm{~F}=01100110$ | $\mathrm{~L}=01101100$ | $\mathrm{R}=01110010$ | $\mathrm{X}=01111000$ |  |

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## What is in the set?

- 3 Binary Code Pages
- Binary Number Counting on a Baseball Mitt
- Alphabet Letters Number Order Chart
- Binary Code for Lowercase Alphabet Letters


## Answers to Binary Riddles on Page 3

Bats
Home

Clip Art is from: Grannygoestoschool.blogspot.com

