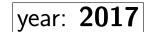
emoji-laden StupendouSly Spicy meme onSlaught

 $19^{\mathrm{th}} \mathrm{~el} \mathrm{SSmo}$

pitSburg, pa









the day of Saturday which happenS to be the tenth day of the Sixth month, that iS the month of june, of thiS right year of two thouSand and ten and Seven 12:15pm — 4:45pm eaStern Standard time

note. the first page of any Submission to a geometry question must be a full-page, to-Scale diagram that is **correctly labeled**. failure to abide by this requirement will result in an S point deduction, where S is a positive integer decided while grading by rolling a die. note that the value for S may differ from person to person.

problem 1. if yo homies n = 1, 0, ..., n, n, with n odd $d \leq 0, B$ **poSitive** integers 'n' crap whom'St'd multiply n = 1, 0, ..., n, with n odd $d \leq 0, ..., B$ Show 0 = 0, 0 that the this BeSt numBer whom'St divvies \div all the 0 = 0, 0 other n is at homies n = 1, 0, ..., n is at most twice d = 0, 0 the n-th power of the this BeSt numBer $0 \leq 0, \infty$ whom'St divvies \div all yo og homies n = 1, 0, 0, 0 the n-th power of the this BeSt numBer $0 \leq 0, \infty$ whom'St divvies \div all yo og homies n = 1, 0, 0, 0 which are the n, n = 1, 0, 0, whence'St i = 1, 0, 0 from'St $1 \leq 1, 0$ to n is at n in an integral manner.

problem 3. nic \mathcal{K} y iS $\mathfrak{mee}_{\mathcal{K}}$ drawing Some \mathcal{K} S in a grid made \mathfrak{K} of more so but does \mathfrak{K} not \mathfrak{K} want conSecutive blockS of three \mathfrak{K} in any direction \mathfrak{K} in any direction \mathfrak{K} in all positive \mathfrak{K} real numbers \mathfrak{K} so that there exists a \mathfrak{K} is a labeling of a $\mathfrak{K} \times \mathfrak{K}$ in \mathfrak{K} in all da positive \mathfrak{K} whole number) with at least $\mathfrak{K} \cdot \mathfrak{K}^2$ of \mathfrak{K} so that \mathfrak{K} is containing \mathcal{K} and \mathcal{K} is a solution \mathfrak{K} is a solution \mathfrak{K} being all da positive \mathfrak{K} is a solution \mathfrak{K} being \mathfrak{K} in \mathfrak{K} in \mathfrak{K} is a solution \mathfrak{K} being \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} being \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} being \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} and \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} is a solution \mathfrak{K} and \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} is a solution \mathfrak{K} in \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} is a solution \mathfrak{K} in \mathfrak{K} and \mathfrak{K} is a solution \mathfrak{K} is a solution \mathfrak{K} in \mathfrak{K} in \mathfrak{K} in \mathfrak{K} is a solution \mathfrak{K} is a solution \mathfrak{K} being a solution \mathfrak{K} is a solution \mathfrak{K} in \mathfrak{K} in \mathfrak{K} is a solution \mathfrak{K} is a solution \mathfrak{K} in \mathfrak{K} in \mathfrak{K} in \mathfrak{K} is a solution \mathfrak{K} in \mathfrak{K} in \mathfrak{K} in \mathfrak{K} is a solution \mathfrak{K} is solution \mathfrak{K} is a sol

Translation Sheet

- A group of three emojis in a row is meaningless, except in a geometry problem.
- thi**BB**eSt means "greatest."
- 📄 is correctly rendered. It means "square."
- "barrycenter" means the center of mass, i.e. the midpoint, centroid, etc.
- "🐨 🔪" means sirkill.

time limit: 162000000000 nanoSecondS. each problem iS worth () pointS.

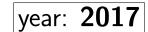
emoji-laden StupendouSly Spicy meme onSlaught

 $19^{\mathrm{th}} \mathrm{~el} \mathrm{SSmo}$

pitSburg, pa









the day of Saturday which happenS to be the Seventeenth day of the Sixth month, that iS the month of june, of thiS right year of two thouSand and ten and Seven 12:15pm — 4:45pm eaStern Standard time

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problem 4. an $\underline{\mathscr{W}}$ integer $\underline{\searrow} > 2 \overset{\circ}{\diamond}$ iS called $\underbrace{\checkmark}$ juicy af $\underbrace{\checkmark}$ if, fo' all yo poSitive integer homieS $\underline{\textcircled{\ }}$, $\underline{\textcircled{\ }}$ whom'St'd add $\overset{\circ}{\diamond}$ $\overset{\circ}{\diamond}$ to $\underbrace{\checkmark}$, at least one $\overset{\circ}{\diamond}$ of $\overset{\otimes}{\underset{\bigoplus}{\textcircled{\ }}}$, $\overset{\circ}{\underset{\bigoplus}{\textcircled{\ }}}$ terminateth $\overset{\circ}{\diamond}$ $\overset{\circ}{\diamond}$ whence'St whom iS $\underbrace{\checkmark}$ written $\underbrace{\checkmark}$ in the manner of decimality $\underline{\mathscr{W}} \underline{\mathscr{W}} \underline{\mathscr{W}}$. do $\underline{\textcircled{\ }}$ there exist an infinite num Ber of juicy af $\underbrace{\textcircled{\ }}_{\textcircled{\ }} \underbrace{\textcircled{\ }}_{\textcircled{\ }} \underbrace{\textcircled{\ }}_{\textcircled{\ }}$ num BerS?

problem 5. let \aleph be the complet' graf on 2017 dotS, with an edg beetween each dot. every edg in \aleph is labeled eider one \triangleleft or two \triangleleft or three \triangleleft Such dat all the \blacktriangle in \aleph have the labelS of their edgez adding to at the very least five $\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{16}}}}}}}}}$ find the most unthible Best averag of all da labelS of the edgez of \aleph .

problem 6. help we lost a function $\mathfrak{P} : \mathbb{R} \to \mathbb{R}$ for \mathfrak{P} we know it has Such a property that if we have $\mathbf{A} + \mathbf{P} + \mathbf{M} \ge 0$ den $\mathfrak{P}(\mathbf{A}^3) + \mathfrak{P}(\mathbf{P}^3) + \mathfrak{P}(\mathbf{M}^3) \ge 3\mathfrak{P}(\mathbf{A} \cdot \mathbf{P} \cdot \mathbf{M})$ but if $\mathbf{A} + \mathbf{P} + \mathbf{M} \le 0$ den $\mathfrak{P}(\mathbf{A}^3) + \mathfrak{P}(\mathbf{P}^3) + \mathfrak{P}(\mathbf{M}^3) \le 3\mathfrak{P}(\mathbf{A} \cdot \mathbf{P} \cdot \mathbf{M})$. please help us find all possible functions with Such a *Special* property So that we can get our function back.

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