emoji-laden StupendouSly Spicy meme onSlaught

year: 2017

19th elSSmo
pitSburg, pa

day: 1

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 👫👥👥, which are 👽$_1$, 👽$_2$, . . . , 👽$_n$, with n odd ☝👌✋, 🅱e ⬆poSitive⬆ integerS 'n' crap whom'St'd multiply ❎✳🍆 to the poSitive integer 👅 then Show 👀👩 that the thi🅱🅱eSt num🅱er whom'St divvieS ➗all thy 🧿🧿🧿 otha😂😂😂 homieS👥👫👫 of da form, 👽$_i^n$ + 👅, whence'St i 💯rangeth🚜 from'St 1 ☝ to ➡ n iS at moSt twice ✌👀👀 the n-th powa of the thi🅱🅱eSt num🅱er 💧💧💦 whom'St divvieS ➗ all yo og homieS 👫👥👥 which are the 👽$_i$, 😍👋🙏, whence'St i 💯rangeth🚜 from'St 1 ☝ to ➡ n, in an integral manner.

problem 2. let 🔺😀😉😘 be a 🔺 with orf'centre 😎, and let 😍 be the barrycenter of 😉😘. S'poSe that 😏, 🙃 are diStinct 💔💚💜💓💌💕💞💙💞💖💘💛❤ pointS on the 👦🔪 with diameter 😀😎, different from 😀, Such that 😍 lieS on line 😏🙃. prove that the orf'centre of 🔺😀😏🙃 lieS on the Sircum👦🔪 of 🔺😀😉😘.

problem 3. nic$\mathcal{K}$y iS 💵😎🐳 drawing Some $\mathcal{K}$S in a ⬜ grid made 🍆🎼🚘 of more ⬜ 😮 but doeS 🚫not🚫🔫💌 want conSecutive blockS of three 👌👌👌 $\mathcal{K}$S in any direction ⬆↗➡↘⬇↙⬅↖ find all poSitive 😃 real numberS 💈 So that there exiStS a 😐🐌🍾 labeling of a 📷 × 📷 ⬜ (for 📷 being all da poSitive 🎺🎁📮 whole nummer) with at leaSt 💈 · 📷^{2} ⬜ 'S containing $\mathcal{K}$👍👍👍.

Translation Sheet

- A group of three emojis in a row is meaningless, except in a geometry problem.
- thi🅱🅱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: 16200000000000 nanoSecondS.
each problem iS worth 🕛 pointS.

emoji-laden StupendouSly Spicy meme onSlaught

year: 2017

19th elSSmo
pitSburg, pa

day: 2

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

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 4. an 💯 integer 🍆 > 2 👌 iS called 🍹juicy af🍹 if, fo' all yo ⬆️poSitive⬆️ integer homieS 😀, 😟 whom'St'd add 💧💧💦 to 🍆, at leaSt one ☝ of 😀, 😟, 😟, 😀 terminateth 💧💧💧 whence'St whom iS ✏️written✏️ in the manner of decimality 💯💯💯. do 😂😂 there exiSt an infinite num🅱️er of juicy af 💦💦💦 num🅱️erS?

problem 5. let ✳️ be th complet' graf on 2017 dotS, with an edg beetween each dot. every edg in ✳️ iS labeled eider one ☝ or two ✌ or three 👌 Such dat all the 🔺 in ✳️ have the labelS of their edgez adding to at the very leaSt five✔️✔️✔️ find the moSt unthi🅱️🅱️eSt averag of all da labelS of the edgez of ✳️.

problem 6. help we loSt a function 💔 : $\mathbb{R} \to \mathbb{R}$ 😭😭😭 we know it haS Such a property that if we have ✏️ + 💡 + ✉️ ≥ 0 den 💔(✏️^{3}) + 💔(💡^{3}) + 💔(✉️^{3}) ≥ 3💔(✏️ · 💡 · ✉️) but if ✏️ + 💡 + ✉️ ≤ 0 den 💔(✏️^{3}) + 💔(💡^{3}) + 💔(✉️^{3}) ≤ 3💔(✏️ · 💡 · ✉️). pleaSe help uS find all poSSible functionS with Such a *Special* property So that we can get our function back.

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- "👨🔪" means sir kill.
- 🔺 represents three vertices and the edges joining them

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