

NEWSLETTER

VOL 40 NO. 5

MIDDLE/JR HIGH SCHOOL

Σ SIGMA

2018 —2019

MATHEMATICS LEAGUE

NEXT CONTEST DATE : March 25—29, 2019

NOTE: Comment on Cumulative Scores. Please remember to send us your CUMULATIVE scores along with your Contest #5 results. We don't want a student to not get an award if he or she has earned one.

**REPORT INDIVIDUAL CUMULATIVE SCORES OF
30 OR ABOVE—GRADES 6, 7 and 8. SCORES OF 25 OR ABOVE -- GRADE 9**

INDIVIDUAL PERFECT SCORES ON CONTEST #4

6 TH Grade	27	8 TH Grade	35
7 TH Grade	43	9 TH grade	2

CUMULATIVE SCORES —CONTESTS 1-4

SCORES

	<u>32</u>	<u>31</u>	<u>30</u>	<u>29</u>	<u>28</u>	<u>27</u>	<u>26</u>	<u>25</u>	<u>24</u>
Gr. 6	2	5	7	3	3	7	15	15	21
Gr. 7	5	5	10	11	14	8	19	21	23
Gr. 8	3	14	11	12	16	18	12	11	11
Gr. 9	0	0	0	0	0	0	1	0	0

TOTAL PARTICIPANTS

5,227

CONTEST #4

1,649	Grade 6
1,731	Grade 7
1,709	Grade 8
138	Grade 9

CONTEST #5 RESULTS: Please return them as soon as possible. That will help us in getting the awards to you in time for your award ceremony and/or for the end of school. For some of you the end of school is the middle of May and for others it is much later.

PRINTING NAMES: We will be printing the names of the pin award recipients in our final newsletter. If any of your students do not want their name printed, please let us know when you send the cumulative scores.

SCORES: We know some of you, no doubt, wish your scores were better but please do not discourage from giving your students the SIGMA problem-Solving opportunity. They deserve it and they will benefit from it.

NEXT YEAR: Since this is the final SIGMA test for 2018-19, it is time to start thinking about next year. We have included a registration form (also available on our web-site) which we would like you to fill it in and return it to us. Then begin the process of getting a purchase order and/or payment to us for the 2019-20 SIGMA MATH LEAGUE.

Form of Payment: We accept only cash or a check. We are not set up to accept credit cards.

Purchase Order: Some schools send purchase orders from the district office and some send them from the school's business office – either one is fine. When we receive a purchase order, we always send an invoice to the address that is on the purchase order.

No Purchase Order: In this case the invoice is sent to the person whose name is on the registration form. We, then, ask that you deliver it to the person that will be making the payment.

Please Help Us make sure that your school is credited with payment when it is sent. In other words, please help us help you! We will appreciate it!

THANK YOU for your participation in 2018-2019! We look forward to writing some interesting, perhaps a bit challenging, problems for 2019-2010.

A MATHEMATICAL PUZZLE sent to you with newsletter #4

Did you and/or your students get it solved?

The following is taken from MATH PUZZLES FOR THE CLEVER by Derrick Niederman.

January 1, 2002, is what is called a “sum-day” because when you write out that date in standard notation it becomes 01/01/02 and $1 + 1 = 2$. More generally, a sum-day is a date in which the day and month add up to the year.

So with that in mind:

- A) What is the last sum-day of the 21st century?
- B) How many sum-days are there in the 21st century?

ANSWER:

A) The last sum-day of the 21st century is December 31, 2043 because $12 + 31 = 43$ and both the month and day are as big as possible.

B) The correct answer is 365, because every day in a standard (non-leap) year is part of a sum-day for some year. (For example, November 26 is a sum-day for the year 2037, because $11 + 26 = 37$.) The only date for which this principle doesn't work is the leap day, February 29. That is because $2 + 29 = 31$ but 2031 is NOT a leap year.

TIDBITS from Reader's Digest, February 2019

Snow: The Canadian Inuit Eskimos have more than 50 words for snow. The Central Siberian Yupik have 40. But the Scots have the biggest vocabulary for snow – 421 words.

Minnesota has more lakes than any other state of the contiguous states, the Land of 10,000 lakes – but actually, it has almost 12,000 of them. But Alaska has more than 3 million lakes.

FYI: We in Lincoln, NE, have a record-breaking year as far as snow is concerned. We have had over 55 inches of snow since October 14 – and we still have a lot of it on the ground. For some of you, that might not be a lot and some of you can't begin to imagine that. Winter is OK but it is getting a bit long this year!

SUMMARY OF RESULTS BY SCHOOL – CONTEST #4

In the following table, the column labeled GR represents the grades of participation by each school; the TTS column is the TEAM SCORE for contest #4, the 6TS, 7TS, 8TS, and 9TS columns represent the TEAM SCORE for each grade for Contest #4; the TCS column is the TEAM CUMULATIVE SCORE; the 6CS, 7CS, 8CS, and 9CS columns represent the CUMULATIVE SCORE through contest #4.

GR	ST	CITY	SCHOOL	TTS	6TS	7TS	8TS	9TS	TCS	6CS	7CS	8CS	9CS	
789	AL	Mountain Brook	Mountain Brook						0	0	0	0	0	
78	AZ	Chandler	Willis JH	77		67	71		296	0	276	251	0	
78	AZ	Queen Creek	Sossaman MS						32	0	6	26	0	
78	AZ	Queen Creek	Payne JHS	62		55	56		268	0	235	239	0	
9	CA	Hillsborough	Crystal Springs Uplands						0	0	0	0	0	
789	CA	Los Altos	Egan						0	0	0	0	0	
9	CA	La Jolla	Country Day Sch						0	0	0	0	206	
678	CA	La Jolla	Country Day Sch	77	60	65	68		241	201	208	207	0	
789	CA	Los Angeles	Berkeley Hall						0	0	0	0	0	
78	CA	Los Angeles	Harvard-Westlake	38		12	26		253	0	129	168	0	
678	CA	Menlo Park	La Entrada MS	51	6	21	24		168	17	80	91	0	
678	CA	Oakland	Head-Royce						0	0	0	0	0	
678	CA	Palos Verdes	Estates Intermediate						275	251	235	258	0	
678	CA	Sacramento	Brookfield						0	0	0	0	0	
6789	CA	San Francisco	Xian Yun Acad	40	9	11	17	17	106	25	22	41	48	
678	CA	South Pasadena	MS	89	81	81	83		367	341	349	348	0	
678	CT	Wolcott	Tyrrell MS	87	72	79	68		306	270	239	257	0	
678	DC	Washington	St Albans School	81	50	72	82		324	242	293	305	0	
89	DE	Wilmington	Tower Hill School	58			60	24	264	0	0	269	127	
678	FL	Miami	Palmer Trinity						60	28	13	42	0	
678	FL	North Miami	Holy Cross Lutheran						81	54	50	15	0	
678	FL	Tallahassee	Community Christ	52	36	39	43		234	154	156	172	0	
678	FL	Tallahassee	Deer Lake	91	53	87	78		368	196	352	332	0	
678	FL	Tallahassee	Fairview MS	87	76	86	33		362	339	199	289	0	
678	FL	Tallahassee	Montford MS	29	11	5	13		170	109	23	99	0	
678	FL	Tampa	Franklin Boys Prep						0	0	0	0	0	
678	FL	Vero Beach	St. Edward's						0	0	0	0	0	
678	FL	Winter Park	Trinity Prep	57	35	48	53		256	152	204	211	0	
78	HI	Kapolei	Kapolei MS	62		47	40		244	0	179	170	0	
78	IA	Coralville	Northwest JH'S	92		76	99		363	0	309	375	0	
78	IA	Madrid	Madrid Jr/Sr						69	0	42	23	10	
78	IA	Neola	Tri-Center	39		26	35		143	0	93	129	0	
678	IL	Edwardsville	Liberty MS						40	22	7	11	0	
678	IL	Edwardsville	Lincoln MS						0	0	0	0	0	
78	IL	Libertyville	Highland MS	86		73	68		340	0	255	277	0	
678	IN	Terre Haute	Honey Creek MS						271	234	254	255	0	
678	IN	Wabash	Northfield Jr/Sr						0	0	0	0	0	
67	KS	Lenexa	Trailridge MS						71	0	64	77	0	
78	KS	Shawnee Mission	Indian Woods						237	0	119	125	0	
678	KS	Shawnee Mission	Hocker Grove						0	0	0	0	0	
67	KY	Edgewood	St Pius X		39	17	34		172	74	140	0	0	
678	MA	Andover	Pike School		61	36	13	18	130	53	44	44	0	
	MA	Needham	St. Sebastian's						0	0	0	0	0	
678	MA	West Bridgewater	MS						0	0	0	0	0	
678	MD	Silver Spring	Takoma Park MS		95	87	94	96	383	365	379	384	0	
678	MI	Bloomfield Hills	MS		78	56	78	56	284	256	258	212	0	
67	MI	Novi	Novi Meadows		89	92	77		349	334	323	0	0	
678	MI	Quincy	Quincy MS						0	0	0	0	0	
678	MN	Willmar	Willmar MS		60	39	58	59	268	228	244	216	0	
678	MO	Chesterfield	Parkway Central M		77	66	67	40	317	304	292	234	0	
678	MO	Independence	Bingham MS						0	0	0	0	0	
678	MO	Kansas City	The Barstow School						0	0	0	0	0	
678	MO	St. Louis	Visitation Academy		25	9	4	12	127	44	18	65	0	
678	MO	St. Peters	Fort Zumwalt South		33	8	0	51	186	61	20	210	0	
6789	MS	Jackson	Jackson Prep		73	29	62	58	58	297	155	243	250	244
6789	NC	Winston Salem	Summit School		71	61	60	25	54	290	259	219	215	222
78	NE	Firth	Norris MS		67		62	57	269	0	243	234	0	
9	NE	Lincoln	East						0	0	0	0	213	
678	NE	Lincoln	Lux MS		82	62	77	70	342	278	306	300	0	
678	NE	Lincoln	Mickle MS		93	39	29	32	363	173	114	122	0	
678	NE	Omaha	Brownell Talbot		62	40	55	49	263	175	222	181	0	
678	NE	Omaha	St. Margaret Mary		46	9	21	29	162	24	88	90	0	
678	NE	Omaha	Christ the King						68	121	121	110	0	
78	NE	Papillion	Liberty MS						199	0	185	173	0	
78	NE	Papillion	Papillion MS		76		61	80	296	0	245	299	0	
678	NJ	Brick	Lake Riviera MS		64	49	64	48	261	214	245	204	0	
678	NJ	Brick	Veterans Memorial						78	25	29	50	0	
6789	NJ		Hamilton Crockett		74	50	59	62	51	294	194	218	263	213
678	NJ	Hamilton Square	St. Gregory						191	96	132	169	0	
78	NJ	Marlboro	Marlboro MS						265	0	245	218	0	
678	NJ	Middletown	Thompson MS		54	32	25	24	229	181	108	109	0	
78	NJ	Morganville	Marlboro Memorial		87		78	55	214	0	228	119	0	
678	NJ	Tinton Falls	Ranney School		37	0	16	36	169	27	64	146	0	
678	NJ	Wycoff	Bergen County Acad						0	0	0	0	0	
789	NY	Floral Park	Floral Park Memorial						87	0	13	36	72	
9	NY	Floral Park	Sewanhaka						5	0	0	0	44	
78	NY	Garden City	Garden City MS						35	0	41	3	0	
678	NY	Long Island City	The 30th Avenue						252	267	247	246	0	
789	NY	New Hartford	Perry JHS		49		30	44	8	226	0	164	207	85
678	NY	New York	PS334 Anderson		80	61	44	21	322	241	163	97	0	
67	NY	Roslyn Heights	Willetts Road Sch						183	102	157	0	0	
678	OH	Ashville	Teays Valley East						0	0	0	0	0	
678	OH	Canal Winchester	MS		63	56	54	50	275	249	234	223	0	
678	OH	Cincinnati	Seven Hills MS		76	54	74	63	301	225	274	267	0	
678	OH	Commercial Pt	Teays Valley West		71	48	55	74	272	199	219	268	0	
678	OH	Williamsport	Westfall MS		56	38	40	38	204	182	154	141	0	
678	OK	Tulsa	University Sch		69	52	55	36	208	157	144	112	0	
	OR	Robert Gray	MS Portland						0	0	0	0	0	
9	PA	Malvern	Great Valley HS						0	0	0	0	58	

678	SC	Columbia	Dent MS					0	0	0	0	0
678	TN	Nashville	Holy Rosary Acad	62	39	50	44	244	170	186	184	0
678	TX	Addison	Greenhill Sch					63	62	14	28	0
678	TX	Arlington	Oakridge Sch					65	55	49	57	0
9	TX	Bedord	Bedford JH					0	0	0	0	29
789	UT	Highland	Mountain Ridge					237	0	189	188	163
7	CA	Homeschool	Foster City					0	0	15	0	0
678	NJ	Hola-Hoboken	Hoboken					90	42	41	29	0
6	MD	Roland Park Country	Baltimore			11		11	0	0	0	

TOP SCHOOLS RANKING CONTEST #4

GRADE 6 (CONTEST #4)

MI	Novi	Novi Meadows	92
MD	Silver Spring	Takoma Park MS	87
CA	South Pasadena	MS	81
FL	Tallahassee	Fairview MS	76
CT	Wolcott	Tyrrell MS	72
MO	Chesterfield	Parkway Central M	66
NE	Lincoln	Lux MS	62
NY	New York	PS334 Anderson Sch	61
NC	Winston Salem	Summit School	61
CA	La Jolla	Country Day Sch	60
MI	Bloomfield Hills	East Hills MS	56
OH	Canal Winchester	MS	56
OH	Cincinnati	Seven Hills MS	54
FL	Tallahassee	Deer Lake	53
OK	Tulsa	University Sch	52
DC	Washington	St Albans School	50
NJ	Hamilton	Crockett MS	50
NJ	Brick	Lake Riviera MS	49
OH	Commercial Pt	Teays Valley West	48

GRADE 7 (CONTEST # 4)

MD	Silver Spring	Takoma Park MS	94
FL	Tallahassee	Deer Lake	87
FL	Tallahassee	Fairview MS	86
CA	South Pasadena	MS	81
CT	Wolcott	Tyrrell MS	79
MI	Bloomfield Hills	East Hills MS	78
NJ	Morganville	Marlboro Memorial	78
MI	Novi	Novi Meadows	77
NE	Lincoln	Lux MS	77
IA	Coralville	Northwest JH'S	76
OH	Cincinnati	Seven Hills MS	74
IL	Libertyville	Highland MS	73
DC	Washington	St Albans School	72
MO	Chesterfield	Parkway Central M	67
AZ	Chandler	Willis JH	67
CA	La Jolla	Country Day Sch	65

NJ	Brick	Lake Riviera MS	64
MS	Jackson	Jackson Prep	62
NE	Firth	Norris MS	62
NE	Papillion	Papillion MS	61

GRADE 8 (CONTEST # 4)

IA	Coralville	Northwest JH'S	99
MD	Silver Spring	Takoma Park MS	96
CA	South Pasadena	MS	83
DC	Washington	St Albans School	82
NE	Papillion	Papillion MS	80
FL	Tallahassee	Deer Lake	78
OH	Commercial Pt	Teays Valley West	74
AZ	Chandler	Willis JH	71
NE	Lincoln	Lux MS	70
CT	Wolcott	Tyrrell MS	68
IL	Libertyville	Highland MS	68
CA	La Jolla	Country Day Sch	68
OH	Cincinnati	Seven Hills MS	63
NJ	Hamilton	Crockett MS	62
DE	Wilmington	Tower Hill School	60
MN	Willmar	Willmar MS	59
MS	Jackson	Jackson Prep	58
NE	Firth	Norris MS	57
MI	Bloomfield Hills	East Hills MS	56
AZ	Queen Creek	Payne JHS	56

GRADE 9 (CONTEST # 4)

MS	Jackson	Jackson Prep	58
NC	Winston Salem	Summit School	54
NJ	Hamilton	Crockett MS	51

DIVISION 2 (CONTEST # 4)

IA	Coralville	Northwest JH'S	92
MI	Novi	Novi Meadows	89
NJ	Morganville	Marlboro Memorial	87
IL	Libertyville	Highland MS	86
AZ	Chandler	Willis JH	77
NE	Papillion	Papillion MS	76
NE	Firth	Norris MS	67
AZ	Queen Creek	Payne JHS	62
HI	Kapolei	Kapolei MS	62
DE	Wilmington	Tower Hill School	58
NY	New Hartford	Perry JHS	49
IA	Neola	Tri-Center	39
KY	Edgewood	St Pius X	39
CA	Los Angeles	Harvard-Westlake	38

DIVISION 3 (CONTEST # 4)

MD	Silver Spring	Takoma Park MS	95
NE	Lincoln	Mickle MS	93
FL	Tallahassee	Deer Lake	91
CA	South Pasadena	MS	89
CT	Wolcott	Tyrrell MS	87
FL	Tallahassee	Fairview MS	87
NE	Lincoln	Lux MS	82
DC	Washington	St Albans School	81
NY	New York	PS334 Anderson Sch	80
MI	Bloomfield Hills	East Hills MS	78
CA	La Jolla	Country Day Sch	77
MO	Chesterfield	Parkway Central M	77
OH	Cincinnati	Seven Hills MS	76
NJ	Hamilton	Crockett MS	74
MS	Jackson	Jackson Prep	73
NC	Winston Salem	Summit School	71
OH	Commercial Pt	Teays Valley West	71
OK	Tulsa	University Sch	69

TOP SCHOOLS RANKING CONTESTS 1--4

GRADE 6 (CUMULATIVE)

MD	Silver Spring	Takoma Park MS	365
CA	South Pasadena	South Pasadena MS	341
FL	Tallahassee	Fairview MS	339
MI	Novi	Novi Meadows	334
MO	Chesterfield	Parkway Central M	304
NE	Lincoln	Lux MS	278
CT	Wolcott	Tyrrell MS	270
NY	Long Island City	The30th Avenue	267
NC	Winston Salem	Summit School	259
MI	Bloomfield Hills	East Hills MS	256
CA	Palos Verdes Estates	Intermediate	251
OH	Canal Winchester	Canal Winchester	249
DC	Washington	St Albans School	242
NY	New York	PS334 Anderson Sch	241
IN	Terre Haute	Honey Creek MS	234
MN	Willmar	Willmar MS	228
OH	Cincinnati	Seven Hills MS	225
NJ	Brick	Lake Riviera MS	214
CA	La Jolla	Country Day Sch	201
OH	Commercial Pt	Teays Valley West	199

GRADE 7 (CUMULATIVE)

MD	Silver Spring	Takoma Park MS	379
FL	Tallahassee	Deer Lake	352
CA	South Pasadena	South Pasadena MS	349
MI	Novi	Novi Meadows	323
IA	Coralville	Northwest JH'S	309
NE	Lincoln	Lux MS	306
DC	Washington	St Albans School	293
MO	Chesterfield	Parkway Central M	292
AZ	Chandler	Willis JH	276
OH	Cincinnati	Seven Hills MS	274
MI	Bloomfield Hills	East Hills MS	258
IL	Libertyville	Highland MS	255
IN	Terre Haute	Honey Creek MS	254

NY	Long Island City	The 30th Avenue	247
NJ	Brick	Lake Riviera MS	245
NE	Papillion	Papillion MS	245
NJ	Marlboro	Marlboro MS	245
MN	Willmar	Willmar MS	244
MS	Jackson	Jackson Prep	243
NE	Firth	Norris MS	243

GRADE 8 (CUMULATIVE)

MD	Silver Spring	Takoma Park MS	384
IA	Coralville	Northwest JH'S	375
CA	South Pasadena	South Pasadena MS	348
FL	Tallahassee	Deer Lake	332
DC	Washington	St Albans School	305
NE	Lincoln	Lux MS	300
NE	Papillion	Papillion MS	299
FL	Tallahassee	Fairview MS	289
IL	Libertyville	Highland MS	277
DE	Wilmington	Tower Hill School	269
OH	Commercial Pt	Teays Valley West	268
OH	Cincinnati	Seven Hills MS	267
NJ	Hamilton	Crockett MS	263
CA	Palos Verdes Estates	Intermediate	258
CT	Wolcott	Tyrrell MS	257
IN	Terre Haute	Honey Creek MS	255
AZ	Chandler	Willis JH	251
MS	Jackson	Jackson Prep	250
NY	Long Island City	The 30th Avenue	246
AZ	Queen Creek	Payne JHS	239

GRADE 9 (CUMULATIVE)

MS	Jackson	Jackson Prep	244
NC	Winston Salem	Summit School	222
NJ	Hamilton	Crockett MS	213
NE	Lincoln	East	213
CA	La Jolla	Country Day Sch	206
UT	Highland	Mountain Ridge JHS	163

DIVISION 3 (CUMULATIVE)

MD	Silver Spring	Takoma Park	383
FL	Tallahassee	Deer Lake	368
CA	South Pasadena	MS	367
NE	Lincoln	Mickle MS	363
FL	Tallahassee	Fairview MS	362
NE	Lincoln	Lux MS	342
DC	Washington	St Albans School	324
NY	New York	PS334 Anderson Sch	322
MO	Chesterfield	Parkway Central M	317
CT	Wolcott	Tyrrell MS	306
OH	Cincinnati	Seven Hills MS	301
MS	Jackson	Jackson Prep	297
NJ	Hamilton	Crockett MS	294
NC	Winston Salem	Summit School	290
MI	Bloomfield Hills	East Hills MS	284
OH	Canal Winchester	MS	275
CA	Palos Verdes Estates	Intermediate	275
OH	Commercial Pt	Teays Valley West	272
IN	Terre Haute	Honey Creek MS	271
MN	Willmar	Willmar MS	268

DIVISION 2 (CUMULATIVE)

IA	Coralville	Northwest JH'S	363
MI	Novi	Novi Meadows	349
IL	Libertyville	Highland MS	340
NE	Papillion	Papillion MS	296
AZ	Chandler	Willis JH	296
NE	Firth	Norris MS	269
AZ	Queen Creek	Payne JHS	268
NJ	Marlboro	Marlboro MS	265
DE	Wilmington	Tower Hill School	264
CA	Los Angeles	Harvard-Westlake	253
HI	Kapolei	Kapolei MS	244
KS	Shawnee Mission	Indian Woods MS	237
NY	New Hartford	Perry JHS	226
NJ	Morganville	Marlboro Memorial	214
NE	Papillion	Liberty MS	199