

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 428	Winter	2019	Kindergarten	Mathematics	77.60	25	87.20	9.60	-9.60	92.16
Classroom 429	Winter	2019	5th Grade	Integrated Science	36.97	50	92.47	55.50	-55.50	3080.25
Classroom 430	Winter	2019	6th Grade	Music	5.00	23	6.00	1.00	-1.00	1
Classroom 431	Winter	2019	6th Grade	Mathematics	18.60	14	91.40	72.80	-72.80	5299.84
Classroom 432	Winter	2019	1st Grade	Integrated Science	31.50	19	75.40	43.90	-43.90	1927.21
Classroom 433	Winter	2019	5th Grade	Mathematics	71.00	25	90.00	19.00	-19.00	361
Classroom 434	Winter	2019	11th Grade	Mathematics	2.00	28	75.00	73.00	-73.00	5329
Classroom 435	Winter	2019	5th Grade	Integrated Science	12.78	27	83.11	70.33	-70.33	4946.3089
Classroom 436	Winter	2019	5th Grade	Music	32.00	32	99.00	67.00	-67.00	4489
Classroom 437	Winter	2019	7th Grade	English	48.00	62	92.00	44.00	-44.00	1936
Classroom 438	Winter	2019	6th Grade	Social Studies	22.00	129	94.00	72.00	-72.00	5184
Classroom 439	Winter	2019	4th Grade	Integrated Science	44.00	19	82.35	38.35	-38.35	1470.7225
Classroom 440	Winter	2019	Kindergarten	Integrated Science	60.40	20	98.40	38.00	-38.00	1444
Classroom 441	Winter	2019	10th Grade	Social Studies	40.00	90	75.00	35.00	-35.00	1225
Classroom 442	Winter	2019	1st Grade	Integrated Science	47.00	19	74.00	27.00	-27.00	729
Classroom 443	Winter	2019	1st Grade	Integrated Science	23.00	19	82.00	59.00	-59.00	3481
Classroom 444	Winter	2019	11th Grade	Social Studies	5.28	116	12.54	7.26	-7.26	52.7076
Classroom 445	Winter	2019	12th Grade	Music	49.53	43	92.56	43.03	-43.03	1851.5809
Classroom 446	Winter	2019	8th Grade	Mathematics	21.00	24	90.00	69.00	-69.00	4761
Classroom 447	Winter	2019	10th Grade	Social Studies	3.57	40	85.00	81.43	-81.43	6630.8449
Classroom 448	Winter	2019	11th Grade	English	49.50	20	67.30	17.80	-17.80	316.84
Classroom 449	Winter	2019	6th Grade	Social Studies	46.00	34	78.00	32.00	-32.00	1024
Classroom 450	Winter	2019	2nd Grade	Mathematics	14.90	21	59.40	44.50	-44.50	1980.25
Classroom 451	Winter	2019	2nd Grade	Integrated Science	62.60	22	92.40	29.80	-29.80	888.04
Classroom 452	Winter	2019	9th Grade	Earth Science	40.00	11	72.00	32.00	-32.00	1024
Classroom 453	Winter	2019	9th Grade	Social Studies	19.00	32	77.00	58.00	-58.00	3364
Classroom 454	Winter	2019	6th Grade	Music	68.00	37	88.00	20.00	-20.00	400
Classroom 455	Winter	2019	11th Grade	Economics	55.00	21	88.00	33.00	-33.00	1089
Classroom 456	Winter	2019	10th Grade	Social Studies	44.40	47	79.53	35.13	-35.13	1234.1169
Classroom 457	Winter	2019	4th Grade	Mathematics	65.00	22	82.00	17.00	-17.00	289
Classroom 458	Winter	2019	10th Grade	Social Studies	52.95	52	68.35	15.40	-15.40	237.16
Classroom 459	Winter	2019	5th Grade	Mathematics	2.30	13	55.00	52.70	-52.70	2777.29
Classroom 460	Winter	2019	6th Grade	Music	60.00	6	100.00	40.00	-40.00	1600
Classroom 461	Winter	2019	9th Grade	Social Studies	51.00	49	80.00	29.00	-29.00	841
Classroom 462	Winter	2019	1st Grade	Social Studies	38.00	25	60.00	22.00	-22.00	484
Classroom 463	Winter	2019	4th Grade	Physical Education	71.00	28	89.00	18.00	-18.00	324
Classroom 464	Winter	2019	9th Grade	English	60.33	72	89.00	28.67	-28.67	821.7796889
Classroom 465	Winter	2019	7th Grade	Music	77.40	31	85.50	8.10	-8.10	65.61
Classroom 466	Winter	2019	9th Grade	English	83.00	80	88.00	5.00	-5.00	25
Classroom 467	Winter	2019	5th Grade	Music	25.00	113	75.00	50.00	-50.00	2500

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Classroom 468	Winter	2019	7th Grade	Mathematics	30.00	61	72.00	42.00	-42.00	1764
Classroom 469	Winter	2019	7th Grade	Music	60.00	10	90.00	30.00	-30.00	900
Classroom 470	Winter	2019	12th Grade	English	70.00	36	94.00	24.00	-24.00	576
Classroom 471	Winter	2019	11th Grade	Chemistry	60.86	23	80.43	19.57	-19.57	382.9849
Classroom 472	Winter	2019	8th Grade	Mathematics	21.80	30	82.50	60.70	-60.70	3684.49
Classroom 473	Winter	2019	7th Grade	English	83.70	86	92.30	8.60	-8.60	73.96
Classroom 474	Winter	2019	10th Grade	English	56.60	58	85.90	29.30	-29.30	858.49
Classroom 475	Winter	2019	11th Grade	Mathematics	30.16	22	57.51	27.35	-27.35	748.0225
Classroom 476	Winter	2019	5th Grade	Mathematics	27.00	24	42.00	15.00	-15.00	225
Classroom 477	Winter	2019	10th Grade	Social Studies	27.00	64	78.00	51.00	-51.00	2601
Classroom 478	Winter	2019	9th Grade	Music	20.00	53	85.00	65.00	-65.00	4225
Classroom 479	Winter	2019	10th Grade	Music	54.00	17	82.00	28.00	-28.00	784
Classroom 480	Winter	2019	Kindergarten	Language Arts	45.00	22	56.00	11.00	-11.00	121
Classroom 481	Winter	2019	6th Grade	Mathematics	7.00	23	65.00	58.00	-58.00	3364
Classroom 482	Winter	2019	Kindergarten	Mathematics	50.00	18	63.00	13.00	-13.00	169
Classroom 483	Winter	2019	2nd Grade	Mathematics	68.00	21	86.00	18.00	-18.00	324
Classroom 484	Winter	2019	Kindergarten	Mathematics	56.00	15	76.00	20.00	-20.00	400
Classroom 485	Winter	2019	10th Grade	German	20.00	15	60.00	40.00	-40.00	1600
Classroom 486	Winter	2019	9th Grade	Biology	49.00	118	76.00	27.00	-27.00	729
Classroom 487	Winter	2019	4th Grade	Mathematics	55.00	24	68.00	13.00	-13.00	169
Classroom 488	Winter	2019	5th Grade	Social Studies	1.94	18	42.00	40.06	-40.06	1604.8036
Classroom 489	Winter	2019	Kindergarten	Integrated Science	68.00	26	89.67	21.67	-21.67	469.4444444
Classroom 490	Winter	2019	Kindergarten	Mathematics	46.90	23	54.76	7.86	-7.86	61.7796
Classroom 491	Winter	2019	Kindergarten	Mathematics	73.00	21	92.00	19.00	-19.00	361
Classroom 492	Winter	2019	1st Grade	Mathematics	62.00	21	90.00	28.00	-28.00	784
Classroom 493	Winter	2019	5th Grade	Social Studies	0.00	20	98.24	98.24	-98.24	9651.0976
Classroom 494	Winter	2019	Kindergarten	Mathematics	57.00	23	82.00	25.00	-25.00	625
Classroom 495	Winter	2018	6th Grade	Music	66.00	77	86.00	20.00	-20.00	400
Classroom 496	Winter	2019	10th Grade	Social Studies	60.00	56	100.00	40.00	-40.00	1600
Classroom 497	Winter	2019	5th Grade	Mathematics	39.00	18	87.20	48.20	-48.20	2323.24
Classroom 498	Winter	2019	8th Grade	English	23.00	19	65.30	42.30	-42.30	1789.29
Classroom 499	Winter	2019	6th Grade	Music	50.00	23	90.00	40.00	-40.00	1600
Classroom 500	Winter	2019	Kindergarten	Language Arts	43.00	23	91.00	48.00	-48.00	2304
Classroom 501	Winter	2019	6th Grade	Language Arts	13.00	29	80.00	67.00	-67.00	4489
Classroom 502	Winter	2019	3rd Grade	Mathematics	57.50	24	83.30	25.80	-25.80	665.64
Classroom 503	Winter	2019	Kindergarten	Mathematics	56.00	24	92.00	36.00	-36.00	1296
Classroom 504	Winter	2019	7th Grade	Social Studies	51.90	27	70.40	18.50	-18.50	342.25
Classroom 505	Winter	2019	3rd Grade	Integrated Science	57.50	20	73.00	15.50	-15.50	240.25
Classroom 506	Winter	2019	10th Grade	Mathematics	46.50	85	81.00	34.50	-34.50	1190.25
Classroom 507	Winter	2019	2nd Grade	Mathematics	56.00	22	94.00	38.00	-38.00	1444

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Classroom 508	Winter	2019	9th Grade	Music	68.80	10	90.80	22.00	-22.00	484
Classroom 509	Winter	2019	5th Grade	Language Arts	42.00	15	78.30	36.30	-36.30	1317.69
Classroom 510	Winter	2019	Kindergarten	Mathematics	38.00	23	43.00	5.00	-5.00	25
Classroom 511	Winter	2019	5th Grade	Integrated Science	52.00	25	77.00	25.00	-25.00	625
Classroom 512	Winter	2019	1st Grade	Mathematics	62.00	22	85.00	23.00	-23.00	529
Classroom 513	Winter	2019	7th Grade	English	35.00	21	57.00	22.00	-22.00	484
Classroom 514	Winter	2019	10th Grade	Chemistry	33.70	29	76.70	43.00	-43.00	1849
Classroom 515	Winter	2019	3rd Grade	Social Studies	87.00	31	93.00	6.00	-6.00	36
Classroom 516	Winter	2019	12th Grade	Art	25.00	25	62.00	37.00	-37.00	1369
Classroom 517	Winter	2019	5th Grade	Social Studies	3.54	24	13.61	10.07	-10.07	101.4049
Classroom 518	Winter	2019	5th Grade	Social Studies	47.00	19	71.00	24.00	-24.00	576
Classroom 519	Winter	2019	9th Grade	Health	54.00	24	85.00	31.00	-31.00	961
Classroom 520	Winter	2019	3rd Grade	Language Arts	55.00	22	72.00	17.00	-17.00	289
Classroom 521	Winter	2019	1st Grade	Mathematics	56.00	23	78.00	22.00	-22.00	484
Classroom 522	Winter	2019	5th Grade	Integrated Science	31.00	25	71.00	40.00	-40.00	1600
Classroom 523	Winter	2019	6th Grade	Language Arts	32.70	22	64.60	31.90	-31.90	1017.61
Classroom 524	Winter	2019	1st Grade	Mathematics	48.80	22	65.90	17.10	-17.10	292.41
Classroom 525	Winter	2019	4th Grade	Integrated Science	47.00	23	80.00	33.00	-33.00	1089
Classroom 526	Winter	2019	4th Grade	Mathematics	52.50	19	69.00	16.50	-16.50	272.25
Classroom 527	Winter	2019	4th Grade	Language Arts	57.00	24	72.00	15.00	-15.00	225
Classroom 528	Winter	2019	3rd Grade	Social Studies	52.60	26	73.50	20.90	-20.90	436.81
Classroom 529	Winter	2019	2nd Grade	Mathematics	54.00	22	83.00	29.00	-29.00	841
Classroom 530	Winter	2019	3rd Grade	Mathematics	55.00	19	67.00	12.00	-12.00	144
Classroom 531	Winter	2019	2nd Grade	Social Studies	40.00	24	83.00	43.00	-43.00	1849
Classroom 532	Winter	2019	8th Grade	Social Studies	9.00	67	71.00	62.00	-62.00	3844
Classroom 533	Winter	2019	9th Grade	Social Studies	41.81	126	72.43	30.62	-30.62	937.5844
Classroom 534	Winter	2019	Kindergarten	Mathematics	66.00	23	83.00	17.00	-17.00	289
Classroom 535	Winter	2019	Kindergarten	Mathematics	93.42	20	93.75	0.33	-0.33	0.1089
Classroom 536	Winter	2019	1st Grade	Mathematics	33.00	23	98.00	65.00	-65.00	4225
Classroom 537	Winter	2019	4th Grade	Mathematics	28.00	22	71.00	43.00	-43.00	1849
Classroom 538	Winter	2019	7th Grade	Music	46.20	30	88.20	42.00	-42.00	1764
Classroom 539	Winter	2019	9th Grade	English	20.00	44	90.00	70.00	-70.00	4900
Classroom 540	Winter	2019	7th Grade	English	74.00	43	93.00	19.00	-19.00	361
Classroom 541	Winter	2019	9th Grade	Social Studies	34.00	109	42.00	8.00	-8.00	64
Classroom 542	Fall	2019	4th Grade	Integrated Science	59.00	22	86.00	27.00	-27.00	729
Classroom 543	Fall	2019	5th Grade	Social Studies	33.00	24	60.00	27.00	-27.00	729
Classroom 544	Fall	2019	4th Grade	Mathematics	58.00	26	67.00	9.00	-9.00	81
Classroom 545	Fall	2019	1st Grade	Mathematics	54.00	22	70.00	16.00	-16.00	256
Classroom 546	Fall	2019	5th Grade	Social Studies	37.14	24	76.00	38.86	-38.86	1510.0996
Classroom 547	Fall	2019	10th Grade	English	50.00	26	95.00	45.00	-45.00	2025

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Classroom 548	Fall	2019	8th Grade	Social Studies	32.00	28	78.00	46.00	-46.00	2116
Classroom 549	Fall	2019	11th Grade	Social Studies	15.90	62	88.92	73.03	-73.03	5332.720875
Classroom 550	Fall	2019	8th Grade	Spanish	29.86	82	77.81	47.95	-47.95	2299.2025
Classroom 551	Fall	2019	10th Grade	Music	25.00	23	75.00	50.00	-50.00	2500
Classroom 552	Fall	2019	10th Grade	Earth Science	40.02	11	87.22	47.20	-47.20	2227.84
Classroom 553	Fall	2019	7th Grade	Social Studies	32.00	26	83.00	51.00	-51.00	2601
Classroom 554	Fall	2019	11th Grade	Mathematics	47.50	33	53.50	6.00	-6.00	36
Classroom 555	Fall	2019	10th Grade	French	28.00	18	94.00	66.00	-66.00	4356
Classroom 556	Fall	2019	9th Grade	Mathematics	96.00	28	88.00	-8.00	8.00	64
Classroom 557	Fall	2019	8th Grade	Physical Education	83.00	45	95.00	12.00	-12.00	144
Classroom 558	Fall	2019	8th Grade	English	72.14	26	75.60	3.46	-3.46	11.9716
Classroom 559	Fall	2019	10th Grade	Spanish	43.00	27	81.00	38.00	-38.00	1444
Classroom 560	Fall	2019	8th Grade	English	49.00	61	74.50	25.50	-25.50	650.25
Classroom 561	Fall	2019	9th Grade	English	20.25	55	55.75	35.50	-35.50	1260.25
Classroom 562	Fall	2019	11th Grade	Economics	70.30	20	93.00	22.70	-22.70	515.29
Classroom 563	Fall	2019	11th Grade	Mathematics	41.00	46	80.00	39.00	-39.00	1521
Classroom 564	Fall	2019	6th Grade	Language Arts	72.20	41	92.90	20.70	-20.70	428.49
Classroom 565	Fall	2019	1st Grade	Language Arts	68.86	19	74.12	5.26	-5.26	27.709696
Classroom 566	Fall	2019	10th Grade	English	56.25	52	76.25	20.00	-20.00	400
Classroom 567	Fall	2019	3rd Grade	Language Arts	0.00	23	100.00	100.00	-100.00	10000
Classroom 568	Fall	2019	2nd Grade	Mathematics	78.00	24	92.00	14.00	-14.00	196
Classroom 569	Fall	2019	1st Grade	Mathematics	25.00	21	97.00	72.00	-72.00	5184
Classroom 570	Fall	2019	9th Grade	Social Studies	26.00	64	53.00	27.00	-27.00	729
Classroom 571	Fall	2019	5th Grade	Integrated Science	33.00	22	78.00	45.00	-45.00	2025
Classroom 572	Fall	2019	10th Grade	Mathematics	4.61	34	72.46	67.85	-67.85	4603.6225
Classroom 573	Fall	2019	11th Grade	English	50.00	73	100.00	50.00	-50.00	2500
Classroom 574	Fall	2019	5th Grade	Social Studies	43.00	27	78.00	35.00	-35.00	1225
Classroom 575	Fall	2019	10th Grade	Music	30.00	20	83.00	53.00	-53.00	2809
Classroom 576	Fall	2019	9th Grade	Art	61.66	24	92.86	31.20	-31.20	973.44
Classroom 577	Fall	2019	10th Grade	English	1.00	50	88.00	87.00	-87.00	7569
Classroom 578	Fall	2019	Kindergarten	Social Studies	64.00	15	88.00	24.00	-24.00	576
Classroom 579	Fall	2019	5th Grade	Language Arts	31.00	21	62.00	31.00	-31.00	961
Classroom 580	Fall	2019	4th Grade	Mathematics	53.00	27	73.00	20.00	-20.00	400
Classroom 581	Fall	2019	3rd Grade	Social Studies	83.00	24	90.00	7.00	-7.00	49
Classroom 582	Fall	2019	5th Grade	Integrated Science	51.00	24	97.00	46.00	-46.00	2116
Classroom 583	Fall	2019	4th Grade	Mathematics	14.00	27	96.00	82.00	-82.00	6724
Classroom 584	Fall	2019	Kindergarten	Mathematics	66.00	23	90.00	24.00	-24.00	576
Classroom 585	Fall	2019	2nd Grade	Language Arts	62.26	22	87.88	25.62	-25.62	656.3844
Classroom 586	Fall	2019	3rd Grade	Social Studies	24.00	24	78.00	54.00	-54.00	2916
Classroom 587	Fall	2019	2nd Grade	Social Studies	50.00	19	80.00	30.00	-30.00	900

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Classroom 588	Fall	2019	12th Grade	Art	55.00	11	80.00	25.00	-25.00	625
Classroom 589	Fall	2019	5th Grade	Social Studies	35.00	22	72.00	37.00	-37.00	1369
Classroom 590	Fall	2019	1st Grade	Language Arts	39.00	22	78.00	39.00	-39.00	1521
Classroom 591	Fall	2019	2nd Grade	Mathematics	33.64	22	54.53	20.89	-20.89	436.3921
Classroom 592	Fall	2019	4th Grade	Mathematics	64.00	16	71.00	7.00	-7.00	49
Classroom 593	Fall	2019	4th Grade	Mathematics	33.00	22	80.20	47.20	-47.20	2227.84
Classroom 594	Fall	2019	5th Grade	Mathematics	17.00	22	87.00	70.00	-70.00	4900
Classroom 595	Fall	2019	1st Grade	Mathematics	61.00	20	95.00	34.00	-34.00	1156
Classroom 596	Fall	2019	11th Grade	Spanish	13.20	25	46.40	33.20	-33.20	1102.24
Classroom 597	Fall	2019	1st Grade	Health	38.00	26	92.00	54.00	-54.00	2916
Classroom 598	Fall	2019	Kindergarten	Social Studies	39.00	22	72.00	33.00	-33.00	1089
Classroom 599	Fall	2019	3rd Grade	Social Studies	15.00	24	97.00	82.00	-82.00	6724
Classroom 600	Fall	2019	2nd Grade	Mathematics	4.00	21	95.00	91.00	-91.00	8281
Classroom 601	Fall	2019	3rd Grade	Mathematics	25.00	23	85.00	60.00	-60.00	3600
Classroom 602	Fall	2019	1st Grade	Mathematics	77.00	16	84.00	7.00	-7.00	49
Classroom 603	Fall	2019	2nd Grade	Mathematics	22.00	23	48.00	26.00	-26.00	676
Classroom 604	Fall	2019	7th Grade	Physical Education	81.00	30	85.00	4.00	-4.00	16
Classroom 605	Fall	2019	4th Grade	Mathematics	50.00	28	82.00	32.00	-32.00	1024
Classroom 606	Fall	2019	3rd Grade	Language Arts	96.00	24	96.00	0.00	0.00	0
Classroom 607	Fall	2019	4th Grade	Social Studies	22.00	21	85.80	63.80	-63.80	4070.44
Classroom 608	Fall	2019	4th Grade	Mathematics	54.00	21	83.00	29.00	-29.00	841
Classroom 609	Fall	2019	1st Grade	Language Arts	80.00	21	95.00	15.00	-15.00	225
Classroom 610	Fall	2019	1st Grade	Language Arts	46.00	24	84.00	38.00	-38.00	1444
Classroom 611	Fall	2019	3rd Grade	Mathematics	8.70	23	64.55	55.85	-55.85	3119.2225
Classroom 612	Fall	2019	1st Grade	Mathematics	51.00	22	86.00	35.00	-35.00	1225
Classroom 613	Fall	2019	1st Grade	Mathematics	59.50	21	90.60	31.10	-31.10	967.21
Classroom 614	Fall	2019	3rd Grade	Social Studies	37.50	28	80.00	42.50	-42.50	1806.25
Classroom 615	Fall	2019	Kindergarten	Integrated Science	29.52	21	87.14	57.62	-57.62	3319.949161
Classroom 616	Fall	2019	4th Grade	Mathematics	52.00	19	70.00	18.00	-18.00	324
Classroom 617	Fall	2019	1st Grade	Mathematics	45.00	39	91.00	46.00	-46.00	2116
Classroom 618	Fall	2019	1st Grade	Language Arts	60.00	26	88.00	28.00	-28.00	784
Classroom 619	Fall	2019	4th Grade	Mathematics	12.00	19	78.00	66.00	-66.00	4356
Classroom 620	Fall	2019	4th Grade	Mathematics	51.70	23	63.40	11.70	-11.70	136.89
Classroom 621	Fall	2019	1st Grade	Language Arts	62.00	3	80.00	18.00	-18.00	324
Classroom 622	Fall	2019	Kindergarten	Mathematics	61.90	23	89.00	27.10	-27.10	734.41
Classroom 623	Fall	2019	2nd Grade	Mathematics	60.38	18	80.60	20.22	-20.22	408.8484
Classroom 624	Fall	2019	4th Grade	Mathematics	13.00	24	70.37	57.37	-57.37	3291.3169
Classroom 625	Fall	2019	4th Grade	Integrated Science	32.00	25	67.00	35.00	-35.00	1225
Classroom 626	Fall	2019	2nd Grade	Integrated Science	46.00	23	71.80	25.80	-25.80	665.64
Classroom 627	Fall	2019	Kindergarten	Mathematics	77.00	17	84.00	7.00	-7.00	49

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 628	Fall	2019	5th Grade	Social Studies	14.00	25	65.00	51.00	-51.00	2601
Classroom 629	Fall	2019	Kindergarten	Mathematics	84.30	22	96.70	12.40	-12.40	153.76
Classroom 630	Fall	2019	Kindergarten	Language Arts	3.70	24	38.00	34.30	-34.30	1176.49
Classroom 631	Fall	2019	4th Grade	Mathematics	13.00	13	56.00	43.00	-43.00	1849
Classroom 632	Fall	2019	1st Grade	Mathematics	71.00	21	76.00	5.00	-5.00	25
Classroom 633	Fall	2019	3rd Grade	Mathematics	14.00	10	82.00	68.00	-68.00	4624
Classroom 634	Fall	2019	3rd Grade	Integrated Science	50.00	23	89.00	39.00	-39.00	1521
Classroom 635	Fall	2019	1st Grade	Mathematics	42.00	14	72.00	30.00	-30.00	900
Classroom 636	Fall	2019	1st Grade	Integrated Science	19.00	24	81.00	62.00	-62.00	3844
Classroom 637	Fall	2019	1st Grade	Integrated Science	24.00	28	85.00	61.00	-61.00	3721
Classroom 638	Fall	2019	3rd Grade	Social Studies	64.00	24	79.00	15.00	-15.00	225
Classroom 639	Fall	2019	3rd Grade	Social Studies	0.00	20	90.00	90.00	-90.00	8100
Classroom 640	Fall	2019	6th Grade	Mathematics	70.83	21	85.19	14.36	-14.36	206.2096
Classroom 641	Fall	2019	3rd Grade	Integrated Science	42.00	27	83.00	41.00	-41.00	1681
Classroom 642	Fall	2019	3rd Grade	Mathematics	44.00	20	72.00	28.00	-28.00	784
Classroom 643	Fall	2019	1st Grade	Social Studies	67.06	17	68.24	1.18	-1.18	1.3924
Classroom 644	Fall	2019	3rd Grade	Language Arts	30.00	13	65.00	35.00	-35.00	1225
Classroom 645	Fall	2019	5th Grade	Language Arts	14.00	19	27.00	13.00	-13.00	169
Classroom 646	Fall	2019	7th Grade	Music	76.60	36	89.24	12.64	-12.64	159.7696
Classroom 647	Fall	2019	9th Grade	Social Studies	50.00	18	86.00	36.00	-36.00	1296

Number of Tests = N 220	Number of P-12 Students: 6667	Average % Improvement: 34.45	"X-Y" or "ED": -7579.22	"(X-Y)^2" or "ED^2" 358059.11
			L =Top Value (Σd/N)	-34.45
			M =Middle value	96947.28
			O =Bottom Value	48180.00
			P =Square root of M/O	1.42
			T = (L/P)	-24.29
			α = 0.05	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-1.637

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 428	Winter	2019	Kindergarten	Mathematics	77.60	25	87.20	9.60	-9.60	92.16
Classroom 440	Winter	2019	Kindergarten	Integrated Science	60.40	20	98.40	38.00	-38.00	1444
Classroom 480	Winter	2019	Kindergarten	Language Arts	45.00	22	56.00	11.00	-11.00	121
Classroom 482	Winter	2019	Kindergarten	Mathematics	50.00	18	63.00	13.00	-13.00	169
Classroom 484	Winter	2019	Kindergarten	Mathematics	56.00	15	76.00	20.00	-20.00	400
Classroom 489	Winter	2019	Kindergarten	Integrated Science	68.00	26	89.67	21.67	-21.67	469.4444444
Classroom 490	Winter	2019	Kindergarten	Mathematics	46.90	23	54.76	7.86	-7.86	61.7796
Classroom 491	Winter	2019	Kindergarten	Mathematics	73.00	21	92.00	19.00	-19.00	361
Classroom 494	Winter	2019	Kindergarten	Mathematics	57.00	23	82.00	25.00	-25.00	625
Classroom 500	Winter	2019	Kindergarten	Language Arts	43.00	23	91.00	48.00	-48.00	2304
Classroom 503	Winter	2019	Kindergarten	Mathematics	56.00	24	92.00	36.00	-36.00	1296
Classroom 510	Winter	2019	Kindergarten	Mathematics	38.00	23	43.00	5.00	-5.00	25
Classroom 534	Winter	2019	Kindergarten	Mathematics	66.00	23	83.00	17.00	-17.00	289
Classroom 535	Winter	2019	Kindergarten	Mathematics	93.42	20	93.75	0.33	-0.33	0.1089
Classroom 578	Fall	2019	Kindergarten	Social Studies	64.00	15	88.00	24.00	-24.00	576
Classroom 584	Fall	2019	Kindergarten	Mathematics	66.00	23	90.00	24.00	-24.00	576
Classroom 598	Fall	2019	Kindergarten	Social Studies	39.00	22	72.00	33.00	-33.00	1089
Classroom 615	Fall	2019	Kindergarten	Integrated Science	29.52	21	87.14	57.62	-57.62	3319.949161
Classroom 622	Fall	2019	Kindergarten	Mathematics	61.90	23	89.00	27.10	-27.10	734.41
Classroom 627	Fall	2019	Kindergarten	Mathematics	77.00	17	84.00	7.00	-7.00	49
Classroom 629	Fall	2019	Kindergarten	Mathematics	84.30	22	96.70	12.40	-12.40	153.76
Classroom 630	Fall	2019	Kindergarten	Language Arts	3.70	24	38.00	34.30	-34.30	1176.49

Number of Tests = N 22	Number of P-12 Students: 470	Average % Improvement: 22.31	"X-Y" or "ED": -490.88	"(X-Y)^2" or "ED^2" 15332.10
			L = Top Value (Σd/N)	-22.31
			M = Middle value	4379.42
			O = Bottom Value	462.00
			P = Square root of M/O	3.08
			T = (L/P)	-7.25
			α = 0.05	Critical T = 1.645
				Significant

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N}}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
						$\sqrt{N(N-1)}$			1/Square Root of N = Effect	-1.545

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 432	Winter	2019	1st Grade	Integrated Science	31.50	19	75.40	43.90	-43.90	1927.21
Classroom 442	Winter	2019	1st Grade	Integrated Science	47.00	19	74.00	27.00	-27.00	729
Classroom 443	Winter	2019	1st Grade	Integrated Science	23.00	19	82.00	59.00	-59.00	3481
Classroom 462	Winter	2019	1st Grade	Social Studies	38.00	25	60.00	22.00	-22.00	484
Classroom 492	Winter	2019	1st Grade	Mathematics	62.00	21	90.00	28.00	-28.00	784
Classroom 512	Winter	2019	1st Grade	Mathematics	62.00	22	85.00	23.00	-23.00	529
Classroom 521	Winter	2019	1st Grade	Mathematics	56.00	23	78.00	22.00	-22.00	484
Classroom 524	Winter	2019	1st Grade	Mathematics	48.80	22	65.90	17.10	-17.10	292.41
Classroom 536	Winter	2019	1st Grade	Mathematics	33.00	23	98.00	65.00	-65.00	4225
Classroom 545	Fall	2019	1st Grade	Mathematics	54.00	22	70.00	16.00	-16.00	256
Classroom 565	Fall	2019	1st Grade	Language Arts	68.86	19	74.12	5.26	-5.26	27.709696
Classroom 569	Fall	2019	1st Grade	Mathematics	25.00	21	97.00	72.00	-72.00	5184
Classroom 590	Fall	2019	1st Grade	Language Arts	39.00	22	78.00	39.00	-39.00	1521
Classroom 595	Fall	2019	1st Grade	Mathematics	61.00	20	95.00	34.00	-34.00	1156
Classroom 597	Fall	2019	1st Grade	Health	38.00	26	92.00	54.00	-54.00	2916
Classroom 602	Fall	2019	1st Grade	Mathematics	77.00	16	84.00	7.00	-7.00	49
Classroom 609	Fall	2019	1st Grade	Language Arts	80.00	21	95.00	15.00	-15.00	225
Classroom 610	Fall	2019	1st Grade	Language Arts	46.00	24	84.00	38.00	-38.00	1444
Classroom 612	Fall	2019	1st Grade	Mathematics	51.00	22	86.00	35.00	-35.00	1225
Classroom 613	Fall	2019	1st Grade	Mathematics	59.50	21	90.60	31.10	-31.10	967.21
Classroom 617	Fall	2019	1st Grade	Mathematics	45.00	39	91.00	46.00	-46.00	2116
Classroom 618	Fall	2019	1st Grade	Language Arts	60.00	26	88.00	28.00	-28.00	784
Classroom 621	Fall	2019	1st Grade	Language Arts	62.00	3	80.00	18.00	-18.00	324
Classroom 632	Fall	2019	1st Grade	Mathematics	71.00	21	76.00	5.00	-5.00	25
Classroom 635	Fall	2019	1st Grade	Mathematics	42.00	14	72.00	30.00	-30.00	900
Classroom 636	Fall	2019	1st Grade	Integrated Science	19.00	24	81.00	62.00	-62.00	3844
Classroom 637	Fall	2019	1st Grade	Integrated Science	24.00	28	85.00	61.00	-61.00	3721
Classroom 643	Fall	2019	1st Grade	Social Studies	67.06	17	68.24	1.18	-1.18	1.3924

Number of Tests = N	Number of P-12 Students:	Average % Improvement:	"X-Y" or "ED":	"(X-Y)^2" or "ED^2"
28	595	32.31	-904.54	39621.93
			L =Top Value ($\sum d/N$)	-32.31
			M =Middle value	10400.51
			O =Bottom Value	756.00
			P =Square root of M/O	3.71

$$\frac{\sum d}{N}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
					$t = \frac{\bar{Y} - \bar{X}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}}$			T = (L/P)	-8.71	
								α = 0.05	Critical T = 1.645	
									Significant	
								T/Square Root of N = Effect	-1.646	

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 450	Winter	2019	2nd Grade	Mathematics	14.90	21	59.40	44.50	-44.50	1980.25
Classroom 451	Winter	2019	2nd Grade	Integrated Science	62.60	22	92.40	29.80	-29.80	888.04
Classroom 483	Winter	2019	2nd Grade	Mathematics	68.00	21	86.00	18.00	-18.00	324
Classroom 507	Winter	2019	2nd Grade	Mathematics	56.00	22	94.00	38.00	-38.00	1444
Classroom 529	Winter	2019	2nd Grade	Mathematics	54.00	22	83.00	29.00	-29.00	841
Classroom 531	Winter	2019	2nd Grade	Social Studies	40.00	24	83.00	43.00	-43.00	1849
Classroom 568	Fall	2019	2nd Grade	Mathematics	78.00	24	92.00	14.00	-14.00	196
Classroom 585	Fall	2019	2nd Grade	Language Arts	62.26	22	87.88	25.62	-25.62	656.3844
Classroom 587	Fall	2019	2nd Grade	Social Studies	50.00	19	80.00	30.00	-30.00	900
Classroom 591	Fall	2019	2nd Grade	Mathematics	33.64	22	54.53	20.89	-20.89	436.3921
Classroom 600	Fall	2019	2nd Grade	Mathematics	4.00	21	95.00	91.00	-91.00	8281
Classroom 603	Fall	2019	2nd Grade	Mathematics	22.00	23	48.00	26.00	-26.00	676
Classroom 623	Fall	2019	2nd Grade	Mathematics	60.38	18	80.60	20.22	-20.22	408.8484
Classroom 626	Fall	2019	2nd Grade	Integrated Science	46.00	23	71.80	25.80	-25.80	665.64

Number of Tests = N 14	Number of P-12 Students: 302	Average % Improvement: 32.56	"X-Y" or "ED": -455.83	"(X-Y)^2" or "ED^2" 19546.55
			L =Top Value ($\sum d/N$)	-32.56
			M =Middle value	4705.06
			O =Bottom Value	182.00
			P =Square root of M/O	5.08
			T = (L/P)	-6.40
			$\alpha = 0.05$	Critical T = 1.645
			T/Square Root of N = Effect	-1.711

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 502	Winter	2019	3rd Grade	Mathematics	57.50	24	83.30	25.80	-25.80	665.64
Classroom 505	Winter	2019	3rd Grade	Integrated Science	57.50	20	73.00	15.50	-15.50	240.25
Classroom 515	Winter	2019	3rd Grade	Social Studies	87.00	31	93.00	6.00	-6.00	36
Classroom 520	Winter	2019	3rd Grade	Language Arts	55.00	22	72.00	17.00	-17.00	289
Classroom 528	Winter	2019	3rd Grade	Social Studies	52.60	26	73.50	20.90	-20.90	436.81
Classroom 530	Winter	2019	3rd Grade	Mathematics	55.00	19	67.00	12.00	-12.00	144
Classroom 567	Fall	2019	3rd Grade	Language Arts	0.00	23	100.00	100.00	-100.00	10000
Classroom 581	Fall	2019	3rd Grade	Social Studies	83.00	24	90.00	7.00	-7.00	49
Classroom 586	Fall	2019	3rd Grade	Social Studies	24.00	24	78.00	54.00	-54.00	2916
Classroom 599	Fall	2019	3rd Grade	Social Studies	15.00	24	97.00	82.00	-82.00	6724
Classroom 601	Fall	2019	3rd Grade	Mathematics	25.00	23	85.00	60.00	-60.00	3600
Classroom 606	Fall	2019	3rd Grade	Language Arts	96.00	24	96.00	0.00	0.00	0
Classroom 611	Fall	2019	3rd Grade	Mathematics	8.70	23	64.55	55.85	-55.85	3119.2225
Classroom 614	Fall	2019	3rd Grade	Social Studies	37.50	28	80.00	42.50	-42.50	1806.25
Classroom 633	Fall	2019	3rd Grade	Mathematics	14.00	10	82.00	68.00	-68.00	4624
Classroom 634	Fall	2019	3rd Grade	Integrated Science	50.00	23	89.00	39.00	-39.00	1521
Classroom 638	Fall	2019	3rd Grade	Social Studies	64.00	24	79.00	15.00	-15.00	225
Classroom 639	Fall	2019	3rd Grade	Social Studies	0.00	20	90.00	90.00	-90.00	8100
Classroom 641	Fall	2019	3rd Grade	Integrated Science	42.00	27	83.00	41.00	-41.00	1681
Classroom 642	Fall	2019	3rd Grade	Mathematics	44.00	20	72.00	28.00	-28.00	784
Classroom 644	Fall	2019	3rd Grade	Language Arts	30.00	13	65.00	35.00	-35.00	1225

Number of Tests = N 21	Number of P-12 Students: 468	Average % Improvement: 38.79	"X-Y" or "ED": -814.55	"(X-Y)^2" or "ED^2" 48186.17
			L =Top Value (Σd/N)	-38.79
			M =Middle value	16591.33
			O =Bottom Value	420.00
			P =Square root of M/O	6.29
			T = (L/P)	-6.17
			α = 0.05	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-1.347

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 439	Winter	2019	4th Grade	Integrated Science	44.00	19	82.35	38.35	-38.35	1470.7225
Classroom 457	Winter	2019	4th Grade	Mathematics	65.00	22	82.00	17.00	-17.00	289
Classroom 463	Winter	2019	4th Grade	Physical Education	71.00	28	89.00	18.00	-18.00	324
Classroom 487	Winter	2019	4th Grade	Mathematics	55.00	24	68.00	13.00	-13.00	169
Classroom 525	Winter	2019	4th Grade	Integrated Science	47.00	23	80.00	33.00	-33.00	1089
Classroom 526	Winter	2019	4th Grade	Mathematics	52.50	19	69.00	16.50	-16.50	272.25
Classroom 527	Winter	2019	4th Grade	Language Arts	57.00	24	72.00	15.00	-15.00	225
Classroom 537	Winter	2019	4th Grade	Mathematics	28.00	22	71.00	43.00	-43.00	1849
Classroom 542	Fall	2019	4th Grade	Integrated Science	59.00	22	86.00	27.00	-27.00	729
Classroom 544	Fall	2019	4th Grade	Mathematics	58.00	26	67.00	9.00	-9.00	81
Classroom 580	Fall	2019	4th Grade	Mathematics	53.00	27	73.00	20.00	-20.00	400
Classroom 583	Fall	2019	4th Grade	Mathematics	14.00	27	96.00	82.00	-82.00	6724
Classroom 592	Fall	2019	4th Grade	Mathematics	64.00	16	71.00	7.00	-7.00	49
Classroom 593	Fall	2019	4th Grade	Mathematics	33.00	22	80.20	47.20	-47.20	2227.84
Classroom 605	Fall	2019	4th Grade	Mathematics	50.00	28	82.00	32.00	-32.00	1024
Classroom 607	Fall	2019	4th Grade	Social Studies	22.00	21	85.80	63.80	-63.80	4070.44
Classroom 608	Fall	2019	4th Grade	Mathematics	54.00	21	83.00	29.00	-29.00	841
Classroom 616	Fall	2019	4th Grade	Mathematics	52.00	19	70.00	18.00	-18.00	324
Classroom 619	Fall	2019	4th Grade	Mathematics	12.00	19	78.00	66.00	-66.00	4356
Classroom 620	Fall	2019	4th Grade	Mathematics	51.70	23	63.40	11.70	-11.70	136.89
Classroom 624	Fall	2019	4th Grade	Mathematics	13.00	24	70.37	57.37	-57.37	3291.3169
Classroom 625	Fall	2019	4th Grade	Integrated Science	32.00	25	67.00	35.00	-35.00	1225
Classroom 631	Fall	2019	4th Grade	Mathematics	13.00	13	56.00	43.00	-43.00	1849

Number of Tests = N 23	Number of P-12 Students: 511	Average % Improvement: 32.26	"X-Y" or "ED": -741.92	"(X-Y)^2" or "ED^2" 33016.46
			L =Top Value (Σd/N)	-32.26
			M =Middle value	9084.06
			O =Bottom Value	506.00
			P =Square root of M/O	4.24
			T = (L/P)	-7.61
			α = 0.05	Critical T = 1.645
				Significant

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2}{N} - \frac{(\sum d)^2}{N^2}}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
						$\sqrt{N(N-1)}$			1/Square Root of N = Effect	-1.587

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 429	Winter	2019	5th Grade	Integrated Science	36.97	50	92.47	55.50	-55.50	3080.25
Classroom 433	Winter	2019	5th Grade	Mathematics	71.00	25	90.00	19.00	-19.00	361
Classroom 435	Winter	2019	5th Grade	Integrated Science	12.78	27	83.11	70.33	-70.33	4946.3089
Classroom 436	Winter	2019	5th Grade	Music	32.00	32	99.00	67.00	-67.00	4489
Classroom 459	Winter	2019	5th Grade	Mathematics	2.30	13	55.00	52.70	-52.70	2777.29
Classroom 467	Winter	2019	5th Grade	Music	25.00	113	75.00	50.00	-50.00	2500
Classroom 476	Winter	2019	5th Grade	Mathematics	27.00	24	42.00	15.00	-15.00	225
Classroom 488	Winter	2019	5th Grade	Social Studies	1.94	18	42.00	40.06	-40.06	1604.8036
Classroom 493	Winter	2019	5th Grade	Social Studies	0.00	20	98.24	98.24	-98.24	9651.0976
Classroom 497	Winter	2019	5th Grade	Mathematics	39.00	18	87.20	48.20	-48.20	2323.24
Classroom 509	Winter	2019	5th Grade	Language Arts	42.00	15	78.30	36.30	-36.30	1317.69
Classroom 511	Winter	2019	5th Grade	Integrated Science	52.00	25	77.00	25.00	-25.00	625
Classroom 517	Winter	2019	5th Grade	Social Studies	3.54	24	13.61	10.07	-10.07	101.4049
Classroom 518	Winter	2019	5th Grade	Social Studies	47.00	19	71.00	24.00	-24.00	576
Classroom 522	Winter	2019	5th Grade	Integrated Science	31.00	25	71.00	40.00	-40.00	1600
Classroom 543	Fall	2019	5th Grade	Social Studies	33.00	24	60.00	27.00	-27.00	729
Classroom 546	Fall	2019	5th Grade	Social Studies	37.14	24	76.00	38.86	-38.86	1510.0996
Classroom 571	Fall	2019	5th Grade	Integrated Science	33.00	22	78.00	45.00	-45.00	2025
Classroom 574	Fall	2019	5th Grade	Social Studies	43.00	27	78.00	35.00	-35.00	1225
Classroom 579	Fall	2019	5th Grade	Language Arts	31.00	21	62.00	31.00	-31.00	961
Classroom 582	Fall	2019	5th Grade	Integrated Science	51.00	24	97.00	46.00	-46.00	2116
Classroom 589	Fall	2019	5th Grade	Social Studies	35.00	22	72.00	37.00	-37.00	1369
Classroom 594	Fall	2019	5th Grade	Mathematics	17.00	22	87.00	70.00	-70.00	4900
Classroom 628	Fall	2019	5th Grade	Social Studies	14.00	25	65.00	51.00	-51.00	2601
Classroom 645	Fall	2019	5th Grade	Language Arts	14.00	19	27.00	13.00	-13.00	169

Number of Tests = N 25	Number of P-12 Students: 673	Average % Improvement: 41.81	"X-Y" or "ED": -1045.26	"(X-Y)^2" or "ED^2" 53783.18
			L =Top Value (Σd/N)	-41.81
			M =Middle value	10080.45
			O =Bottom Value	600.00
			P =Square root of M/O	4.10
			T = (L/P)	-10.20
			α = 0.05	Critical T = 1.645

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2}{N} - \frac{(\sum d)^2}{N^2}}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
					$\sqrt{\frac{N}{N(N-1)}}$					Significant
									T/Square Root of N = Effect	-2.040

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 430	Winter	2019	6th Grade	Music	5.00	23	6.00	1.00	-1.00	1
Classroom 431	Winter	2019	6th Grade	Mathematics	18.60	14	91.40	72.80	-72.80	5299.84
Classroom 437	Winter	2019	7th Grade	English	48.00	62	92.00	44.00	-44.00	1936
Classroom 438	Winter	2019	6th Grade	Social Studies	22.00	129	94.00	72.00	-72.00	5184
Classroom 446	Winter	2019	8th Grade	Mathematics	21.00	24	90.00	69.00	-69.00	4761
Classroom 449	Winter	2019	6th Grade	Social Studies	46.00	34	78.00	32.00	-32.00	1024
Classroom 454	Winter	2019	6th Grade	Music	68.00	37	88.00	20.00	-20.00	400
Classroom 460	Winter	2019	6th Grade	Music	60.00	6	100.00	40.00	-40.00	1600
Classroom 465	Winter	2019	7th Grade	Music	77.40	31	85.50	8.10	-8.10	65.61
Classroom 468	Winter	2019	7th Grade	Mathematics	30.00	61	72.00	42.00	-42.00	1764
Classroom 469	Winter	2019	7th Grade	Music	60.00	10	90.00	30.00	-30.00	900
Classroom 472	Winter	2019	8th Grade	Mathematics	21.80	30	82.50	60.70	-60.70	3684.49
Classroom 473	Winter	2019	7th Grade	English	83.70	86	92.30	8.60	-8.60	73.96
Classroom 481	Winter	2019	6th Grade	Mathematics	7.00	23	65.00	58.00	-58.00	3364
Classroom 495	Winter	2018	6th Grade	Music	66.00	77	86.00	20.00	-20.00	400
Classroom 498	Winter	2019	8th Grade	English	23.00	19	65.30	42.30	-42.30	1789.29
Classroom 499	Winter	2019	6th Grade	Music	50.00	23	90.00	40.00	-40.00	1600
Classroom 501	Winter	2019	6th Grade	Language Arts	13.00	29	80.00	67.00	-67.00	4489
Classroom 504	Winter	2019	7th Grade	Social Studies	51.90	27	70.40	18.50	-18.50	342.25
Classroom 513	Winter	2019	7th Grade	English	35.00	21	57.00	22.00	-22.00	484
Classroom 523	Winter	2019	6th Grade	Language Arts	32.70	22	64.60	31.90	-31.90	1017.61
Classroom 532	Winter	2019	8th Grade	Social Studies	9.00	67	71.00	62.00	-62.00	3844
Classroom 538	Winter	2019	7th Grade	Music	46.20	30	88.20	42.00	-42.00	1764
Classroom 540	Winter	2019	7th Grade	English	74.00	43	93.00	19.00	-19.00	361
Classroom 548	Fall	2019	8th Grade	Social Studies	32.00	28	78.00	46.00	-46.00	2116
Classroom 550	Fall	2019	8th Grade	Spanish	29.86	82	77.81	47.95	-47.95	2299.2025
Classroom 553	Fall	2019	7th Grade	Social Studies	32.00	26	83.00	51.00	-51.00	2601
Classroom 557	Fall	2019	8th Grade	Physical Education	83.00	45	95.00	12.00	-12.00	144
Classroom 558	Fall	2019	8th Grade	English	72.14	26	75.60	3.46	-3.46	11.9716
Classroom 560	Fall	2019	8th Grade	English	49.00	61	74.50	25.50	-25.50	650.25
Classroom 564	Fall	2019	6th Grade	Language Arts	72.20	41	92.90	20.70	-20.70	428.49
Classroom 604	Fall	2019	7th Grade	Physical Education	81.00	30	85.00	4.00	-4.00	16
Classroom 640	Fall	2019	6th Grade	Mathematics	70.83	21	85.19	14.36	-14.36	206.2096
Classroom 646	Fall	2019	7th Grade	Music	76.60	36	89.24	12.64	-12.64	159.7696

Number of Tests = N

Number of P-12 Students:

Average % Improvement:

"X-Y" or "ED":

"(X-Y)^2" or "ED^2"

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
			34			1321		34.13	-1160.51	54781.94
									L =Top Value ($\sum d/N$)	-34.13
									M =Middle value	15170.67
									O =Bottom Value	1122.00
									P =Square root of M/O	3.68
									T = (L/P)	-9.28
									$\alpha = 0.05$	Critical T = 1.645
										Significant
									T/Square Root of N = Effect	-1.592

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 434	Winter	2019	11th Grade	Mathematics	2.00	28	75.00	73.00	-73.00	5329
Classroom 441	Winter	2019	10th Grade	Social Studies	40.00	90	75.00	35.00	-35.00	1225
Classroom 444	Winter	2019	11th Grade	Social Studies	5.28	116	12.54	7.26	-7.26	52.7076
Classroom 445	Winter	2019	12th Grade	Music	49.53	43	92.56	43.03	-43.03	1851.5809
Classroom 447	Winter	2019	10th Grade	Social Studies	3.57	40	85.00	81.43	-81.43	6630.8449
Classroom 448	Winter	2019	11th Grade	English	49.50	20	67.30	17.80	-17.80	316.84
Classroom 452	Winter	2019	9th Grade	Earth Science	40.00	11	72.00	32.00	-32.00	1024
Classroom 453	Winter	2019	9th Grade	Social Studies	19.00	32	77.00	58.00	-58.00	3364
Classroom 455	Winter	2019	11th Grade	Economics	55.00	21	88.00	33.00	-33.00	1089
Classroom 456	Winter	2019	10th Grade	Social Studies	44.40	47	79.53	35.13	-35.13	1234.1169
Classroom 458	Winter	2019	10th Grade	Social Studies	52.95	52	68.35	15.40	-15.40	237.16
Classroom 461	Winter	2019	9th Grade	Social Studies	51.00	49	80.00	29.00	-29.00	841
Classroom 464	Winter	2019	9th Grade	English	60.33	72	89.00	28.67	-28.67	821.7796889
Classroom 466	Winter	2019	9th Grade	English	83.00	80	88.00	5.00	-5.00	25
Classroom 470	Winter	2019	12th Grade	English	70.00	36	94.00	24.00	-24.00	576
Classroom 471	Winter	2019	11th Grade	Chemistry	60.86	23	80.43	19.57	-19.57	382.9849
Classroom 474	Winter	2019	10th Grade	English	56.60	58	85.90	29.30	-29.30	858.49
Classroom 475	Winter	2019	11th Grade	Mathematics	30.16	22	57.51	27.35	-27.35	748.0225
Classroom 477	Winter	2019	10th Grade	Social Studies	27.00	64	78.00	51.00	-51.00	2601
Classroom 478	Winter	2019	9th Grade	Music	20.00	53	85.00	65.00	-65.00	4225
Classroom 479	Winter	2019	10th Grade	Music	54.00	17	82.00	28.00	-28.00	784
Classroom 485	Winter	2019	10th Grade	German	20.00	15	60.00	40.00	-40.00	1600
Classroom 486	Winter	2019	9th Grade	Biology	49.00	118	76.00	27.00	-27.00	729
Classroom 496	Winter	2019	10th Grade	Social Studies	60.00	56	100.00	40.00	-40.00	1600
Classroom 506	Winter	2019	10th Grade	Mathematics	46.50	85	81.00	34.50	-34.50	1190.25
Classroom 508	Winter	2019	9th Grade	Music	68.80	10	90.80	22.00	-22.00	484
Classroom 514	Winter	2019	10th Grade	Chemistry	33.70	29	76.70	43.00	-43.00	1849
Classroom 516	Winter	2019	12th Grade	Art	25.00	25	62.00	37.00	-37.00	1369
Classroom 519	Winter	2019	9th Grade	Health	54.00	24	85.00	31.00	-31.00	961
Classroom 533	Winter	2019	9th Grade	Social Studies	41.81	126	72.43	30.62	-30.62	937.5844
Classroom 539	Winter	2019	9th Grade	English	20.00	44	90.00	70.00	-70.00	4900
Classroom 541	Winter	2019	9th Grade	Social Studies	34.00	109	42.00	8.00	-8.00	64
Classroom 547	Fall	2019	10th Grade	English	50.00	26	95.00	45.00	-45.00	2025
Classroom 549	Fall	2019	11th Grade	Social Studies	15.90	62	88.92	73.03	-73.03	5332.720875
Classroom 551	Fall	2019	10th Grade	Music	25.00	23	75.00	50.00	-50.00	2500
Classroom 552	Fall	2019	10th Grade	Earth Science	40.02	11	87.22	47.20	-47.20	2227.84
Classroom 554	Fall	2019	11th Grade	Mathematics	47.50	33	53.50	6.00	-6.00	36
Classroom 555	Fall	2019	10th Grade	French	28.00	18	94.00	66.00	-66.00	4356
Classroom 556	Fall	2019	9th Grade	Mathematics	96.00	28	88.00	-8.00	8.00	64
Classroom 559	Fall	2019	10th Grade	Spanish	43.00	27	81.00	38.00	-38.00	1444

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 561	Fall	2019	9th Grade	English	20.25	55	55.75	35.50	-35.50	1260.25
Classroom 562	Fall	2019	11th Grade	Economics	70.30	20	93.00	22.70	-22.70	515.29
Classroom 563	Fall	2019	11th Grade	Mathematics	41.00	46	80.00	39.00	-39.00	1521
Classroom 566	Fall	2019	10th Grade	English	56.25	52	76.25	20.00	-20.00	400
Classroom 570	Fall	2019	9th Grade	Social Studies	26.00	64	53.00	27.00	-27.00	729
Classroom 572	Fall	2019	10th Grade	Mathematics	4.61	34	72.46	67.85	-67.85	4603.6225
Classroom 573	Fall	2019	11th Grade	English	50.00	73	100.00	50.00	-50.00	2500
Classroom 575	Fall	2019	10th Grade	Music	30.00	20	83.00	53.00	-53.00	2809
Classroom 576	Fall	2019	9th Grade	Art	61.66	24	92.86	31.20	-31.20	973.44
Classroom 577	Fall	2019	10th Grade	English	1.00	50	88.00	87.00	-87.00	7569
Classroom 588	Fall	2019	12th Grade	Art	55.00	11	80.00	25.00	-25.00	625
Classroom 596	Fall	2019	11th Grade	Spanish	13.20	25	46.40	33.20	-33.20	1102.24
Classroom 647	Fall	2019	9th Grade	Social Studies	50.00	18	86.00	36.00	-36.00	1296

Number of Tests = N 53	Number of P-12 Students: 2327	Average % Improvement: 37.09	"X-Y" or "ED": -1965.73	"(X-Y)^2" or "ED^2" 93790.77
			L =Top Value (Σd/N)	-37.09
			M =Middle value	20883.16
			O =Bottom Value	2756.00
			P =Square root of M/O	2.75
			T = (L/P)	-13.47
			α = 0.05	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-1.851

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 430	Winter	2019	6th Grade	Music	5.00	23	6.00	1.00	-1.00	1
Classroom 436	Winter	2019	5th Grade	Music	32.00	32	99.00	67.00	-67.00	4489
Classroom 445	Winter	2019	12th Grade	Music	49.53	43	92.56	43.03	-43.03	1851.5809
Classroom 454	Winter	2019	6th Grade	Music	68.00	37	88.00	20.00	-20.00	400
Classroom 460	Winter	2019	6th Grade	Music	60.00	6	100.00	40.00	-40.00	1600
Classroom 465	Winter	2019	7th Grade	Music	77.40	31	85.50	8.10	-8.10	65.61
Classroom 467	Winter	2019	5th Grade	Music	25.00	113	75.00	50.00	-50.00	2500
Classroom 469	Winter	2019	7th Grade	Music	60.00	10	90.00	30.00	-30.00	900
Classroom 478	Winter	2019	9th Grade	Music	20.00	53	85.00	65.00	-65.00	4225
Classroom 479	Winter	2019	10th Grade	Music	54.00	17	82.00	28.00	-28.00	784
Classroom 495	Winter	2018	6th Grade	Music	66.00	77	86.00	20.00	-20.00	400
Classroom 499	Winter	2019	6th Grade	Music	50.00	23	90.00	40.00	-40.00	1600
Classroom 508	Winter	2019	9th Grade	Music	68.80	10	90.80	22.00	-22.00	484
Classroom 516	Winter	2019	12th Grade	Art	25.00	25	62.00	37.00	-37.00	1369
Classroom 538	Winter	2019	7th Grade	Music	46.20	30	88.20	42.00	-42.00	1764
Classroom 551	Fall	2019	10th Grade	Music	25.00	23	75.00	50.00	-50.00	2500
Classroom 575	Fall	2019	10th Grade	Music	30.00	20	83.00	53.00	-53.00	2809
Classroom 576	Fall	2019	9th Grade	Art	61.66	24	92.86	31.20	-31.20	973.44
Classroom 588	Fall	2019	12th Grade	Art	55.00	11	80.00	25.00	-25.00	625
Classroom 646	Fall	2019	7th Grade	Music	76.60	36	89.24	12.64	-12.64	159.7696

Number of Tests = N	Number of P-12 Students:	Average % Improvement:	"X-Y" or "ED":	"(X-Y)^2" or "ED^2"
20	642	34.25	-684.97	29500.40
			L =Top Value ($\sum d/N$)	-34.25
			M =Middle value	6041.21
			O =Bottom Value	380.00
			P =Square root of M/O	3.99
			T = (L/P)	-8.59
			$\alpha = 0.05$	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-1.921

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 437	Winter	2019	7th Grade	English	48.00	62	92.00	44.00	-44.00	1936
Classroom 448	Winter	2019	11th Grade	English	49.50	20	67.30	17.80	-17.80	316.84
Classroom 464	Winter	2019	9th Grade	English	60.33	72	89.00	28.67	-28.67	821.7796889
Classroom 466	Winter	2019	9th Grade	English	83.00	80	88.00	5.00	-5.00	25
Classroom 470	Winter	2019	12th Grade	English	70.00	36	94.00	24.00	-24.00	576
Classroom 473	Winter	2019	7th Grade	English	83.70	86	92.30	8.60	-8.60	73.96
Classroom 474	Winter	2019	10th Grade	English	56.60	58	85.90	29.30	-29.30	858.49
Classroom 480	Winter	2019	Kindergarten	Language Arts	45.00	22	56.00	11.00	-11.00	121
Classroom 498	Winter	2019	8th Grade	English	23.00	19	65.30	42.30	-42.30	1789.29
Classroom 500	Winter	2019	Kindergarten	Language Arts	43.00	23	91.00	48.00	-48.00	2304
Classroom 501	Winter	2019	6th Grade	Language Arts	13.00	29	80.00	67.00	-67.00	4489
Classroom 509	Winter	2019	5th Grade	Language Arts	42.00	15	78.30	36.30	-36.30	1317.69
Classroom 513	Winter	2019	7th Grade	English	35.00	21	57.00	22.00	-22.00	484
Classroom 520	Winter	2019	3rd Grade	Language Arts	55.00	22	72.00	17.00	-17.00	289
Classroom 523	Winter	2019	6th Grade	Language Arts	32.70	22	64.60	31.90	-31.90	1017.61
Classroom 527	Winter	2019	4th Grade	Language Arts	57.00	24	72.00	15.00	-15.00	225
Classroom 539	Winter	2019	9th Grade	English	20.00	44	90.00	70.00	-70.00	4900
Classroom 540	Winter	2019	7th Grade	English	74.00	43	93.00	19.00	-19.00	361
Classroom 547	Fall	2019	10th Grade	English	50.00	26	95.00	45.00	-45.00	2025
Classroom 558	Fall	2019	8th Grade	English	72.14	26	75.60	3.46	-3.46	11.9716
Classroom 560	Fall	2019	8th Grade	English	49.00	61	74.50	25.50	-25.50	650.25
Classroom 561	Fall	2019	9th Grade	English	20.25	55	55.75	35.50	-35.50	1260.25
Classroom 564	Fall	2019	6th Grade	Language Arts	72.20	41	92.90	20.70	-20.70	428.49
Classroom 565	Fall	2019	1st Grade	Language Arts	68.86	19	74.12	5.26	-5.26	27.709696
Classroom 566	Fall	2019	10th Grade	English	56.25	52	76.25	20.00	-20.00	400
Classroom 567	Fall	2019	3rd Grade	Language Arts	0.00	23	100.00	100.00	-100.00	10000
Classroom 573	Fall	2019	11th Grade	English	50.00	73	100.00	50.00	-50.00	2500
Classroom 577	Fall	2019	10th Grade	English	1.00	50	88.00	87.00	-87.00	7569
Classroom 579	Fall	2019	5th Grade	Language Arts	31.00	21	62.00	31.00	-31.00	961
Classroom 585	Fall	2019	2nd Grade	Language Arts	62.26	22	87.88	25.62	-25.62	656.3844
Classroom 590	Fall	2019	1st Grade	Language Arts	39.00	22	78.00	39.00	-39.00	1521
Classroom 606	Fall	2019	3rd Grade	Language Arts	96.00	24	96.00	0.00	0.00	0
Classroom 609	Fall	2019	1st Grade	Language Arts	80.00	21	95.00	15.00	-15.00	225
Classroom 610	Fall	2019	1st Grade	Language Arts	46.00	24	84.00	38.00	-38.00	1444
Classroom 618	Fall	2019	1st Grade	Language Arts	60.00	26	88.00	28.00	-28.00	784
Classroom 621	Fall	2019	1st Grade	Language Arts	62.00	3	80.00	18.00	-18.00	324
Classroom 630	Fall	2019	Kindergarten	Language Arts	3.70	24	38.00	34.30	-34.30	1176.49
Classroom 644	Fall	2019	3rd Grade	Language Arts	30.00	13	65.00	35.00	-35.00	1225
Classroom 645	Fall	2019	5th Grade	Language Arts	14.00	19	27.00	13.00	-13.00	169

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
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Number of Tests = N 39			Number of P-12 Students: 1339		Average % Improvement: 30.93		"X-Y" or "ED": -1206.21	"(X-Y)^2" or "ED^2": 55264.21
							L =Top Value (Σd/N)	-30.93
							M =Middle value	17957.94
							O =Bottom Value	1482.00
							P =Square root of M/O	3.48
							T = (L/P)	-8.88
							α = 0.05	Critical T = 1.645
							T/Square Root of N = Effect	-1.423

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 463	Winter	2019	4th Grade	Physical Education	71.00	28	89.00	18.00	-18.00	324
Classroom 519	Winter	2019	9th Grade	Health	54.00	24	85.00	31.00	-31.00	961
Classroom 557	Fall	2019	8th Grade	Physical Education	83.00	45	95.00	12.00	-12.00	144
Classroom 597	Fall	2019	1st Grade	Health	38.00	26	92.00	54.00	-54.00	2916
Classroom 604	Fall	2019	7th Grade	Physical Education	81.00	30	85.00	4.00	-4.00	16

Number of Tests = N	Number of P-12 Students:	Average % Improvement:	"X-Y" or "ED":	"(X-Y)^2" or "ED^2"
5	153	23.80	-119.00	4361.00
			L =Top Value ($\sum d/N$)	-23.80
			M =Middle value	1528.80
			O =Bottom Value	20.00
			P =Square root of M/O	8.74
			T = (L/P)	-2.72
			$\alpha = 0.05$	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-1.217

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 428	Winter	2019	Kindergarten	Mathematics	77.60	25	87.20	9.60	-9.60	92.16
Classroom 431	Winter	2019	6th Grade	Mathematics	18.60	14	91.40	72.80	-72.80	5299.84
Classroom 433	Winter	2019	5th Grade	Mathematics	71.00	25	90.00	19.00	-19.00	361
Classroom 434	Winter	2019	11th Grade	Mathematics	2.00	28	75.00	73.00	-73.00	5329
Classroom 446	Winter	2019	8th Grade	Mathematics	21.00	24	90.00	69.00	-69.00	4761
Classroom 450	Winter	2019	2nd Grade	Mathematics	14.90	21	59.40	44.50	-44.50	1980.25
Classroom 455	Winter	2019	11th Grade	Mathematics	55.00	21	88.00	33.00	-33.00	1089
Classroom 457	Winter	2019	4th Grade	Mathematics	65.00	22	82.00	17.00	-17.00	289
Classroom 459	Winter	2019	5th Grade	Mathematics	2.30	13	55.00	52.70	-52.70	2777.29
Classroom 468	Winter	2019	7th Grade	Mathematics	30.00	61	72.00	42.00	-42.00	1764
Classroom 472	Winter	2019	8th Grade	Mathematics	21.80	30	82.50	60.70	-60.70	3684.49
Classroom 475	Winter	2019	11th Grade	Mathematics	30.16	22	57.51	27.35	-27.35	748.0225
Classroom 476	Winter	2019	5th Grade	Mathematics	27.00	24	42.00	15.00	-15.00	225
Classroom 481	Winter	2019	6th Grade	Mathematics	7.00	23	65.00	58.00	-58.00	3364
Classroom 482	Winter	2019	Kindergarten	Mathematics	50.00	18	63.00	13.00	-13.00	169
Classroom 483	Winter	2019	2nd Grade	Mathematics	68.00	21	86.00	18.00	-18.00	324
Classroom 484	Winter	2019	Kindergarten	Mathematics	56.00	15	76.00	20.00	-20.00	400
Classroom 487	Winter	2019	4th Grade	Mathematics	55.00	24	68.00	13.00	-13.00	169
Classroom 490	Winter	2019	Kindergarten	Mathematics	46.90	23	54.76	7.86	-7.86	61.7796
Classroom 491	Winter	2019	Kindergarten	Mathematics	73.00	21	92.00	19.00	-19.00	361
Classroom 492	Winter	2019	1st Grade	Mathematics	62.00	21	90.00	28.00	-28.00	784
Classroom 494	Winter	2019	Kindergarten	Mathematics	57.00	23	82.00	25.00	-25.00	625
Classroom 497	Winter	2019	5th Grade	Mathematics	39.00	18	87.20	48.20	-48.20	2323.24
Classroom 502	Winter	2019	3rd Grade	Mathematics	57.50	24	83.30	25.80	-25.80	665.64
Classroom 503	Winter	2019	Kindergarten	Mathematics	56.00	24	92.00	36.00	-36.00	1296
Classroom 506	Winter	2019	10th Grade	Mathematics	46.50	85	81.00	34.50	-34.50	1190.25
Classroom 507	Winter	2019	2nd Grade	Mathematics	56.00	22	94.00	38.00	-38.00	1444
Classroom 510	Winter	2019	Kindergarten	Mathematics	38.00	23	43.00	5.00	-5.00	25
Classroom 512	Winter	2019	1st Grade	Mathematics	62.00	22	85.00	23.00	-23.00	529
Classroom 521	Winter	2019	1st Grade	Mathematics	56.00	23	78.00	22.00	-22.00	484
Classroom 524	Winter	2019	1st Grade	Mathematics	48.80	22	65.90	17.10	-17.10	292.41
Classroom 526	Winter	2019	4th Grade	Mathematics	52.50	19	69.00	16.50	-16.50	272.25
Classroom 529	Winter	2019	2nd Grade	Mathematics	54.00	22	83.00	29.00	-29.00	841
Classroom 530	Winter	2019	3rd Grade	Mathematics	55.00	19	67.00	12.00	-12.00	144
Classroom 534	Winter	2019	Kindergarten	Mathematics	66.00	23	83.00	17.00	-17.00	289
Classroom 535	Winter	2019	Kindergarten	Mathematics	93.42	20	93.75	0.33	-0.33	0.1089
Classroom 536	Winter	2019	1st Grade	Mathematics	33.00	23	98.00	65.00	-65.00	4225
Classroom 537	Winter	2019	4th Grade	Mathematics	28.00	22	71.00	43.00	-43.00	1849
Classroom 544	Fall	2019	4th Grade	Mathematics	58.00	26	67.00	9.00	-9.00	81
Classroom 545	Fall	2019	1st Grade	Mathematics	54.00	22	70.00	16.00	-16.00	256

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 554	Fall	2019	11th Grade	Mathematics	47.50	33	53.50	6.00	-6.00	36
Classroom 556	Fall	2019	9th Grade	Mathematics	96.00	28	88.00	-8.00	8.00	64
Classroom 562	Fall	2019	11th Grade	Mathematics	70.30	20	93.00	22.70	-22.70	515.29
Classroom 563	Fall	2019	11th Grade	Mathematics	41.00	46	80.00	39.00	-39.00	1521
Classroom 568	Fall	2019	2nd Grade	Mathematics	78.00	24	92.00	14.00	-14.00	196
Classroom 569	Fall	2019	1st Grade	Mathematics	25.00	21	97.00	72.00	-72.00	5184
Classroom 572	Fall	2019	10th Grade	Mathematics	4.61	34	72.46	67.85	-67.85	4603.6225
Classroom 580	Fall	2019	4th Grade	Mathematics	53.00	27	73.00	20.00	-20.00	400
Classroom 583	Fall	2019	4th Grade	Mathematics	14.00	27	96.00	82.00	-82.00	6724
Classroom 584	Fall	2019	Kindergarten	Mathematics	66.00	23	90.00	24.00	-24.00	576
Classroom 591	Fall	2019	2nd Grade	Mathematics	33.64	22	54.53	20.89	-20.89	436.3921
Classroom 592	Fall	2019	4th Grade	Mathematics	64.00	16	71.00	7.00	-7.00	49
Classroom 593	Fall	2019	4th Grade	Mathematics	33.00	22	80.20	47.20	-47.20	2227.84
Classroom 594	Fall	2019	5th Grade	Mathematics	17.00	22	87.00	70.00	-70.00	4900
Classroom 595	Fall	2019	1st Grade	Mathematics	61.00	20	95.00	34.00	-34.00	1156
Classroom 600	Fall	2019	2nd Grade	Mathematics	4.00	21	95.00	91.00	-91.00	8281
Classroom 601	Fall	2019	3rd Grade	Mathematics	25.00	23	85.00	60.00	-60.00	3600
Classroom 602	Fall	2019	1st Grade	Mathematics	77.00	16	84.00	7.00	-7.00	49
Classroom 603	Fall	2019	2nd Grade	Mathematics	22.00	23	48.00	26.00	-26.00	676
Classroom 605	Fall	2019	4th Grade	Mathematics	50.00	28	82.00	32.00	-32.00	1024
Classroom 608	Fall	2019	4th Grade	Mathematics	54.00	21	83.00	29.00	-29.00	841
Classroom 611	Fall	2019	3rd Grade	Mathematics	8.70	23	64.55	55.85	-55.85	3119.2225
Classroom 612	Fall	2019	1st Grade	Mathematics	51.00	22	86.00	35.00	-35.00	1225
Classroom 613	Fall	2019	1st Grade	Mathematics	59.50	21	90.60	31.10	-31.10	967.21
Classroom 616	Fall	2019	4th Grade	Mathematics	52.00	19	70.00	18.00	-18.00	324
Classroom 617	Fall	2019	1st Grade	Mathematics	45.00	39	91.00	46.00	-46.00	2116
Classroom 619	Fall	2019	4th Grade	Mathematics	12.00	19	78.00	66.00	-66.00	4356
Classroom 620	Fall	2019	4th Grade	Mathematics	51.70	23	63.40	11.70	-11.70	136.89
Classroom 622	Fall	2019	Kindergarten	Mathematics	61.90	23	89.00	27.10	-27.10	734.41
Classroom 623	Fall	2019	2nd Grade	Mathematics	60.38	18	80.60	20.22	-20.22	408.8484
Classroom 624	Fall	2019	4th Grade	Mathematics	13.00	24	70.37	57.37	-57.37	3291.3169
Classroom 627	Fall	2019	Kindergarten	Mathematics	77.00	17	84.00	7.00	-7.00	49
Classroom 629	Fall	2019	Kindergarten	Mathematics	84.30	22	96.70	12.40	-12.40	153.76
Classroom 631	Fall	2019	4th Grade	Mathematics	13.00	13	56.00	43.00	-43.00	1849
Classroom 632	Fall	2019	1st Grade	Mathematics	71.00	21	76.00	5.00	-5.00	25
Classroom 633	Fall	2019	3rd Grade	Mathematics	14.00	10	82.00	68.00	-68.00	4624
Classroom 635	Fall	2019	1st Grade	Mathematics	42.00	14	72.00	30.00	-30.00	900
Classroom 640	Fall	2019	6th Grade	Mathematics	70.83	21	85.19	14.36	-14.36	206.2096
Classroom 642	Fall	2019	3rd Grade	Mathematics	44.00	20	72.00	28.00	-28.00	784

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
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Number of Tests = N	Number of P-12 Students:	Average % Improvement:	"X-Y" or "ED":	"(X-Y)^2" or "ED^2"
79	1851	32.08	-2534.68	119194.74
			L =Top Value ($\sum d/N$)	-32.08
			M =Middle value	37870.66
			O =Bottom Value	6162.00
			P =Square root of M/O	2.48
			T = (L/P)	-12.94
			$\alpha = 0.05$	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-1.456

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 485	Winter	2019	10th Grade	German	20.00	15	60.00	40.00	-40.00	1600
Classroom 550	Fall	2019	8th Grade	Spanish	29.86	82	77.81	47.95	-47.95	2299.2025
Classroom 555	Fall	2019	10th Grade	French	28.00	18	94.00	66.00	-66.00	4356
Classroom 559	Fall	2019	10th Grade	Spanish	43.00	27	81.00	38.00	-38.00	1444
Classroom 596	Fall	2019	11th Grade	Spanish	13.20	25	46.40	33.20	-33.20	1102.24

Number of Tests = N	Number of P-12 Students:	Average % Improvement:	"X-Y" or "ED":	"(X-Y)^2" or "ED^2"
5	167	45.03	-225.15	10801.44
			L =Top Value ($\sum d/N$)	-45.03
			M =Middle value	662.94
			O =Bottom Value	20.00
			P =Square root of M/O	5.76
			T = (L/P)	-7.82
			$\alpha = 0.05$	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-3.498

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 429	Winter	2019	5th Grade	Integrated Science	36.97	50	92.47	55.50	-55.50	3080.25
Classroom 432	Winter	2019	1st Grade	Integrated Science	31.50	19	75.40	43.90	-43.90	1927.21
Classroom 435	Winter	2019	5th Grade	Integrated Science	12.78	27	83.11	70.33	-70.33	4946.3089
Classroom 439	Winter	2019	4th Grade	Integrated Science	44.00	19	82.35	38.35	-38.35	1470.7225
Classroom 440	Winter	2019	Kindergarten	Integrated Science	60.40	20	98.40	38.00	-38.00	1444
Classroom 442	Winter	2019	1st Grade	Integrated Science	47.00	19	74.00	27.00	-27.00	729
Classroom 443	Winter	2019	1st Grade	Integrated Science	23.00	19	82.00	59.00	-59.00	3481
Classroom 451	Winter	2019	2nd Grade	Integrated Science	62.60	22	92.40	29.80	-29.80	888.04
Classroom 452	Winter	2019	9th Grade	Earth Science	40.00	11	72.00	32.00	-32.00	1024
Classroom 471	Winter	2019	11th Grade	Chemistry	60.86	23	80.43	19.57	-19.57	382.9849
Classroom 486	Winter	2019	9th Grade	Biology	49.00	118	76.00	27.00	-27.00	729
Classroom 489	Winter	2019	Kindergarten	Integrated Science	68.00	26	89.67	21.67	-21.67	469.4444444
Classroom 505	Winter	2019	3rd Grade	Integrated Science	57.50	20	73.00	15.50	-15.50	240.25
Classroom 511	Winter	2019	5th Grade	Integrated Science	52.00	25	77.00	25.00	-25.00	625
Classroom 514	Winter	2019	10th Grade	Chemistry	33.70	29	76.70	43.00	-43.00	1849
Classroom 522	Winter	2019	5th Grade	Integrated Science	31.00	25	71.00	40.00	-40.00	1600
Classroom 525	Winter	2019	4th Grade	Integrated Science	47.00	23	80.00	33.00	-33.00	1089
Classroom 542	Fall	2019	4th Grade	Integrated Science	59.00	22	86.00	27.00	-27.00	729
Classroom 552	Fall	2019	10th Grade	Earth Science	40.02	11	87.22	47.20	-47.20	2227.84
Classroom 571	Fall	2019	5th Grade	Integrated Science	33.00	22	78.00	45.00	-45.00	2025
Classroom 582	Fall	2019	5th Grade	Integrated Science	51.00	24	97.00	46.00	-46.00	2116
Classroom 615	Fall	2019	Kindergarten	Integrated Science	29.52	21	87.14	57.62	-57.62	3319.949161
Classroom 625	Fall	2019	4th Grade	Integrated Science	32.00	25	67.00	35.00	-35.00	1225
Classroom 626	Fall	2019	2nd Grade	Integrated Science	46.00	23	71.80	25.80	-25.80	665.64
Classroom 634	Fall	2019	3rd Grade	Integrated Science	50.00	23	89.00	39.00	-39.00	1521
Classroom 636	Fall	2019	1st Grade	Integrated Science	19.00	24	81.00	62.00	-62.00	3844
Classroom 637	Fall	2019	1st Grade	Integrated Science	24.00	28	85.00	61.00	-61.00	3721
Classroom 641	Fall	2019	3rd Grade	Integrated Science	42.00	27	83.00	41.00	-41.00	1681

Number of Tests = N	Number of P-12 Students:	Average % Improvement:	"X-Y" or "ED":	"(X-Y)^2" or "ED^2"
28	741	39.47	-1105.24	49050.64
			L =Top Value ($\sum d/N$)	-39.47
			M =Middle value	5424.00
			O =Bottom Value	756.00
			P =Square root of M/O	2.68

$$\frac{\sum d}{N}$$

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
					$t = \frac{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}}{\sqrt{N}}$			T = (L/P)	-14.74	
								α = 0.05	Critical T = 1.645	
									Significant	
								T/Square Root of N = Effect	-2.785	

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 438	Winter	2019	6th Grade	Social Studies	22.00	129	94.00	72.00	-72.00	5184
Classroom 441	Winter	2019	10th Grade	Social Studies	40.00	90	75.00	35.00	-35.00	1225
Classroom 444	Winter	2019	11th Grade	Social Studies	5.28	116	12.54	7.26	-7.26	52.7076
Classroom 447	Winter	2019	10th Grade	Social Studies	3.57	40	85.00	81.43	-81.43	6630.8449
Classroom 449	Winter	2019	6th Grade	Social Studies	46.00	34	78.00	32.00	-32.00	1024
Classroom 453	Winter	2019	9th Grade	Social Studies	19.00	32	77.00	58.00	-58.00	3364
Classroom 456	Winter	2019	10th Grade	Social Studies	44.40	47	79.53	35.13	-35.13	1234.1169
Classroom 458	Winter	2019	10th Grade	Social Studies	52.95	52	68.35	15.40	-15.40	237.16
Classroom 461	Winter	2019	9th Grade	Social Studies	51.00	49	80.00	29.00	-29.00	841
Classroom 462	Winter	2019	1st Grade	Social Studies	38.00	25	60.00	22.00	-22.00	484
Classroom 477	Winter	2019	10th Grade	Social Studies	27.00	64	78.00	51.00	-51.00	2601
Classroom 488	Winter	2019	5th Grade	Social Studies	1.94	18	42.00	40.06	-40.06	1604.8036
Classroom 493	Winter	2019	5th Grade	Social Studies	0.00	20	98.24	98.24	-98.24	9651.0976
Classroom 496	Winter	2019	10th Grade	Social Studies	60.00	56	100.00	40.00	-40.00	1600
Classroom 504	Winter	2019	7th Grade	Social Studies	51.90	27	70.40	18.50	-18.50	342.25
Classroom 515	Winter	2019	3rd Grade	Social Studies	87.00	31	93.00	6.00	-6.00	36
Classroom 517	Winter	2019	5th Grade	Social Studies	3.54	24	13.61	10.07	-10.07	101.4049
Classroom 518	Winter	2019	5th Grade	Social Studies	47.00	19	71.00	24.00	-24.00	576
Classroom 528	Winter	2019	3rd Grade	Social Studies	52.60	26	73.50	20.90	-20.90	436.81
Classroom 531	Winter	2019	2nd Grade	Social Studies	40.00	24	83.00	43.00	-43.00	1849
Classroom 532	Winter	2019	8th Grade	Social Studies	9.00	67	71.00	62.00	-62.00	3844
Classroom 533	Winter	2019	9th Grade	Social Studies	41.81	126	72.43	30.62	-30.62	937.5844
Classroom 541	Winter	2019	9th Grade	Social Studies	34.00	109	42.00	8.00	-8.00	64
Classroom 543	Fall	2019	5th Grade	Social Studies	33.00	24	60.00	27.00	-27.00	729
Classroom 546	Fall	2019	5th Grade	Social Studies	37.14	24	76.00	38.86	-38.86	1510.0996
Classroom 548	Fall	2019	8th Grade	Social Studies	32.00	28	78.00	46.00	-46.00	2116
Classroom 549	Fall	2019	11th Grade	Social Studies	15.90	62	88.92	73.03	-73.03	5332.720875
Classroom 553	Fall	2019	7th Grade	Social Studies	32.00	26	83.00	51.00	-51.00	2601
Classroom 570	Fall	2019	9th Grade	Social Studies	26.00	64	53.00	27.00	-27.00	729
Classroom 574	Fall	2019	5th Grade	Social Studies	43.00	27	78.00	35.00	-35.00	1225
Classroom 578	Fall	2019	Kindergarten	Social Studies	64.00	15	88.00	24.00	-24.00	576
Classroom 581	Fall	2019	3rd Grade	Social Studies	83.00	24	90.00	7.00	-7.00	49
Classroom 586	Fall	2019	3rd Grade	Social Studies	24.00	24	78.00	54.00	-54.00	2916
Classroom 587	Fall	2019	2nd Grade	Social Studies	50.00	19	80.00	30.00	-30.00	900
Classroom 589	Fall	2019	5th Grade	Social Studies	35.00	22	72.00	37.00	-37.00	1369
Classroom 598	Fall	2019	Kindergarten	Social Studies	39.00	22	72.00	33.00	-33.00	1089
Classroom 599	Fall	2019	3rd Grade	Social Studies	15.00	24	97.00	82.00	-82.00	6724
Classroom 607	Fall	2019	4th Grade	Social Studies	22.00	21	85.80	63.80	-63.80	4070.44
Classroom 614	Fall	2019	3rd Grade	Social Studies	37.50	28	80.00	42.50	-42.50	1806.25
Classroom 628	Fall	2019	5th Grade	Social Studies	14.00	25	65.00	51.00	-51.00	2601

Classroom Sample	Semester	Year	Grade-Level Assessed	Content Area Assessed	Pre-SCORE (X)	Number of P-12 Students	Post-SCORE (Y)	"Y-X" Change	"X-Y" or "ED"	"(X-Y)^2" or "ED^2"
Classroom 638	Fall	2019	3rd Grade	Social Studies	64.00	24	79.00	15.00	-15.00	225
Classroom 639	Fall	2019	3rd Grade	Social Studies	0.00	20	90.00	90.00	-90.00	8100
Classroom 643	Fall	2019	1st Grade	Social Studies	67.06	17	68.24	1.18	-1.18	1.3924
Classroom 647	Fall	2019	9th Grade	Social Studies	50.00	18	86.00	36.00	-36.00	1296

Number of Tests = N 44	Number of P-12 Students: 1776	Average % Improvement: 38.73	"X-Y" or "ED": -1703.98	"(X-Y)^2" or "ED^2" 89886.68
			L =Top Value ($\sum d/N$)	-38.73
			M =Middle value	23897.31
			O =Bottom Value	1892.00
			P =Square root of M/O	3.55
			T = (L/P)	-10.90
			$\alpha = 0.05$	Critical T = 1.645
				Significant
			T/Square Root of N = Effect	-1.643

$$t = \frac{\frac{\sum d}{N}}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}$$