

Appendix

1. Descriptives

```
FREQUENCIES VARIABLES=X1 X2 X3 X4 X5 Y
  /STATISTICS=STDDEV VARIANCE RANGE MINIMUM MAXIMUM SEMEAN MEAN MEDIAN MODE
SUM SKEWNESS SESKEW KURTOSIS SEKURT
  /ORDER=ANALYSIS.
```

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
X1	560	11.00	26.00	21.0143	2.54403
X2	560	8.00	25.00	14.8321	2.48654
X3	560	6.00	25.00	14.8196	3.63908
X4	560	5.00	25.00	11.8393	2.37817
X5	560	7.00	25.00	18.9321	2.59676
Y	560	5.00	97.00	67.7857	17.47609
Valid N (listwise)	560				

```
FREQUENCIES VARIABLES=X1 X2 X3 X4 X5
  /ORDER=ANALYSIS.
```

2. Frequency Table

X1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 11.00	1	.2	.2	.2
13.00	1	.2	.2	.4
14.00	5	.9	.9	1.3
15.00	13	2.3	2.3	3.6
16.00	13	2.3	2.3	5.9
17.00	20	3.6	3.6	9.5
18.00	32	5.7	5.7	15.2
19.00	45	8.0	8.0	23.2
20.00	76	13.5	13.6	36.8
21.00	110	19.5	19.6	56.4
22.00	90	16.0	16.1	72.5
23.00	57	10.1	10.2	82.7
24.00	48	8.5	8.6	91.3
25.00	47	8.3	8.4	99.6
26.00	2	.4	.4	100.0
Total	560	99.5	100.0	
Missing System	3	.5		
Total	563	100.0		

X2

		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	8.00	3	.5	.5	.5	
	9.00	4	.7	.7	1.3	
	10.00	12	2.1	2.1	3.4	
	11.00	15	2.7	2.7	6.1	
	12.00	47	8.3	8.4	14.5	
	13.00	74	13.1	13.2	27.7	
	14.00	92	16.3	16.4	44.1	
	15.00	117	20.8	20.9	65.0	
	16.00	101	17.9	18.0	83.0	
	17.00	47	8.3	8.4	91.4	
	18.00	8	1.4	1.4	92.9	
	19.00	7	1.2	1.3	94.1	
	20.00	18	3.2	3.2	97.3	
	21.00	3	.5	.5	97.9	
	22.00	5	.9	.9	98.8	
	23.00	3	.5	.5	99.3	
	24.00	2	.4	.4	99.6	
	25.00	2	.4	.4	100.0	
		Total	560	99.5	100.0	
	Missing	System	3	.5		
Total		563	100.0			

X3

		Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	6.00	5	.9	.9	.9	
	7.00	5	.9	.9	1.8	
	8.00	9	1.6	1.6	3.4	
	9.00	4	.7	.7	4.1	
	10.00	18	3.2	3.2	7.3	
	11.00	42	7.5	7.5	14.8	
	12.00	64	11.4	11.4	26.3	
	13.00	67	11.9	12.0	38.2	
	14.00	90	16.0	16.1	54.3	
	15.00	86	15.3	15.4	69.6	
	16.00	23	4.1	4.1	73.8	
	17.00	12	2.1	2.1	75.9	
	18.00	23	4.1	4.1	80.0	
	19.00	24	4.3	4.3	84.3	
	20.00	45	8.0	8.0	92.3	
	21.00	16	2.8	2.9	95.2	
	22.00	13	2.3	2.3	97.5	
	23.00	8	1.4	1.4	98.9	
	24.00	3	.5	.5	99.5	
	25.00	3	.5	.5	100.0	
		Total	560	99.5	100.0	

Missing System	3	.5	
Total	563	100.0	

X4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5.00	1	.2	.2	.2
	6.00	2	.4	.4	.5
	7.00	5	.9	.9	1.4
	8.00	9	1.6	1.6	3.0
	9.00	34	6.0	6.1	9.1
	10.00	109	19.4	19.5	28.6
	11.00	82	14.6	14.6	43.2
	12.00	145	25.8	25.9	69.1
	13.00	97	17.2	17.3	86.4
	14.00	46	8.2	8.2	94.6
	15.00	11	2.0	2.0	96.6
	17.00	1	.2	.2	96.8
	19.00	3	.5	.5	97.3
	20.00	4	.7	.7	98.0
	21.00	3	.5	.5	98.6
	22.00	5	.9	.9	99.5
	23.00	2	.4	.4	99.8
	25.00	1	.2	.2	100.0
	Total	560	99.5	100.0	
Missing System		3	.5		
Total		563	100.0		

X5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7.00	1	.2	.2	.2
	8.00	1	.2	.2	.4
	9.00	1	.2	.2	.5
	10.00	6	1.1	1.1	1.6
	11.00	2	.4	.4	2.0
	12.00	6	1.1	1.1	3.0
	13.00	6	1.1	1.1	4.1
	14.00	9	1.6	1.6	5.7
	15.00	16	2.8	2.9	8.6
	16.00	20	3.6	3.6	12.1
	17.00	48	8.5	8.6	20.7
	18.00	99	17.6	17.7	38.4
	19.00	96	17.1	17.1	55.5
	20.00	92	16.3	16.4	72.0
	21.00	95	16.9	17.0	88.9
	22.00	34	6.0	6.1	95.0
	23.00	20	3.6	3.6	98.6
	24.00	5	.9	.9	99.5
	25.00	3	.5	.5	100.0
	Total	560	99.5	100.0	
Missing System		3	.5		
Total		563	100.0		

3. Interval, Frequency and Indicator Categories HOTS

X1: Concept Understanding

Interval			F	%	Category
	$x >$	25	2	0.4	Very good
23	$< x \leq$	25	95	17.0	Good
19	$< x \leq$	23	333	59.5	Enough
16	$< x \leq$	19	97	17.3	Less
	$< x \leq$	19	33	5.9	Not good

X2: Mathematical communication

Interval			F	%	Category
	$x >$	19	33	5.9	Very good
16	$< x \leq$	19	62	11.1	Good
13	$< x \leq$	16	310	55.4	Enough
10	$< x \leq$	13	136	24.3	Less
	$< x \leq$	19	19	3.3	Not good

X3: Creativity

Interval			F	%	Category
	$x >$	19	88	15.7	Very good
16	$< x \leq$	19	59	10.5	Good
13	$< x \leq$	16	199	35.5	Enough
10	$< x \leq$	13	173	30.9	Less
	$< x \leq$	10	41	7.3	Not good

X4: Problem solving

Interval			F	%	Category
	$x >$	15	19	3.4	Very good
13	$< x \leq$	15	57	10.2	Good
10	$< x \leq$	13	324	57.9	Enough
8	$< x \leq$	10	143	25.5	Less
	$< x \leq$	8	17	3.0	Not good

X5: Reasoning

Interval			F	%	Category
	$x >$	23	8	1.4	Very good
21	$< x \leq$	23	54	9.6	Good
17	$< x \leq$	21	382	68.2	Enough
14	$< x \leq$	17	84	15.0	Less
	$< x \leq$	14	32	5.7	Not good

4. Regression

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Y
/METHOD=ENTER X1.
  
```

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	205.362	1	205.362	5.771	.017 ^a
	Residual	19855.431	558	35.583		
	Total	20060.793	559			

a. Predictors: (Constant), X1

b. Dependent Variable: Y

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Y
/METHOD=ENTER X2.
  
```

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	165.743	1	165.743	4.649	.032 ^a
	Residual	19895.050	558	35.654		
	Total	20060.793	559			

a. Predictors: (Constant), X2

b. Dependent Variable: Y

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Y
/METHOD=ENTER X3.
  
```

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	258.352	1	258.352	7.280	.007 ^a
	Residual	19802.441	558	35.488		
	Total	20060.793	559			

a. Predictors: (Constant), X3

b. Dependent Variable: Y

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT Y
 /METHOD=ENTER X4.

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	321.178	1	321.178	9.079	.003 ^a
	Residual	19739.615	558	35.376		
	Total	20060.793	559			

a. Predictors: (Constant), X4

b. Dependent Variable: Y

REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT Y
 /METHOD=ENTER X5.

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	475.963	1	475.963	13.561	.000 ^a
	Residual	19584.830	558	35.098		
	Total	20060.793	559			

a. Predictors: (Constant), X5

b. Dependent Variable: Y

5. List of Student Names, Questionare Results and Mathematical Ability Test

No	Name	X1	X2	X3	X4	X5	Y	School
1	Ade Laila Zahra	21	22	23	21	21	85	SMP Neg.15 - Medan
2	Andreas Ronaldo Sihombing	24	24	18	21	21	85	
3	Amanda Sri Dewi	24	22	25	22	22	85	
4	Aprilia Kristin Br.Saragi	25	24	19	22	22	80	
5	Aviva Sahbila	25	21	18	20	20	85	
6	Az Zahra Salsa Billa	25	23	19	22	22	75	
7	Bintang Panca Arga Hutagaol	25	20	22	19	19	80	
8	Daffa Fadhillah	21	25	21	17	17	75	
9	Daniel Raphael Sagala	25	20	23	20	20	85	
10	Dicky Syahputra	13	21	17	21	21	85	
11	Dio Fahreza	25	22	23	19	19	85	
12	Gesyana Farahdiba	24	19	25	19	19	80	
13	Gresya Adelina Br.Sembiring	24	11	22	11	11	90	
14	Ivy Maya Kalista	23	20	23	20	20	95	
15	Kayla Zakirah	24	15	25	15	15	85	
16	Mia Junia Br.Nainggolan	25	22	17	22	22	85	
17	Muhammad Afdal	23	22	18	22	22	80	
18	Muhammad Ramadhan Nababan	21	25	20	25	25	85	
19	Muhammad Rizki	21	23	20	23	23	80	
20	Muhammad Try Cahyadi	21	23	21	23	23	90	
21	Nurul Hidayah	22	20	16	20	20	75	
22	Putri Jafaris Lubis	23	17	22	12	22	70	
23	Rapiki Ikhsan Nasution	23	14	18	10	18	70	
24	Relita Manurung	24	13	24	12	23	90	
25	Riska Ardilla	18	14	22	9	16	60	
26	Roby Nugraha	11	14	19	8	12	65	
27	Siti Hazazi Umar	20	14	19	13	23	85	
28	Suci Atmaja	15	16	22	12	24	60	
29	Suci Putri Karia	22	17	22	13	19	95	
30	Vivi Suryani	22	16	21	14	18	85	
31	Yohana Meilani Br.Tampubolon	25	18	21	12	18	85	
32	Yohannes Siringo-Ringo	23	15	23	12	23	70	SMP Neg 37-Medan
33	Ade Magfirah	23	17	21	12	22	45	
34	Ain	20	16	21	6	14	45	
35	Alvin Christian G.	19	10	24	13	10	15	
36	Andini	20	15	23	12	8	15	
37	Ario Naraya	19	16	22	12	10	15	
38	Arya Pranata H.	22	13	17	11	21	30	
39	Dewi Maryanti	22	17	19	13	10	35	
40	Fahmi Azrhil	21	17	20	9	12	5	
41	Farhan Gilang Ramadan	20	15	21	12	14	15	

42	Febby Aulia	24	16	20	12	9	40		
43	Jonahtan Christ	21	15	22	12	16	30		
44	Marsella Tuak	25	16	20	11	19	30		
45	M. Andika Syahputra	23	17	20	12	15	50		
46	M. Iqbal Ramadhan	20	17	21	12	10	45		
47	Mutiara Fani	22	15	16	12	10	50		
48	Nadine Clara H.	25	14	20	13	16	40		
49	Nadya Natasyah S.	23	15	16	13	15	25		
50	Nicho Agusta S.	19	17	22	10	15	25		
51	Nurhayati Khalillah D.	24	17	21	10	12	20		
52	Putri Ananda Christy S.	20	15	21	6	14	35		
53	Rendra Adriani P.	24	16	24	9	12	40		
54	Abel Gita Anjuana.S	21	13	22	10	14	64	SMA Parulian 1-Medan	
55	Alexander Jhon Pratam L.G	19	17	23	10	19	91		
56	BandHard Paul Yogi Gulo	22	14	21	9	19	82		
57	Bastian Gokma.p.	24	14	12	13	19	73		
58	Christin Febiola Simbolon	22	17	13	10	20	79		
59	Christofel Octorandy	24	10	14	12	20	85		
60	Debora Tambunan	21	16	10	14	21	67		
61	Desi Lasmaria Simamora	23	15	14	10	23	70		
62	Desti Giselaanjelika.M	20	15	13	12	20	70		
63	Prengki Sihombing	25	16	15	14	19	76		
64	Elisabeth Hutagaol	20	17	8	13	20	64		
65	Erwita Putri Duha	21	14	11	13	19	73		
66	Ester Enjelysa Panggabean	22	13	13	13	19	52		
67	Gideon Pratama Simanjuntak	19	17	15	10	22	73		
68	Hendrico Purba	14	20	12	10	15	88		
69	Karen Uli Tambunan	18	15	15	9	21	73		
70	Kelvin Riduan Pangaribuan	19	12	13	11	19	52		
71	Miduk Sahputra Sitinjak	24	13	14	10	18	88		
72	Natasha Serly Margaretha.T.	21	16	15	10	20	64		
73	Nicholas Putra Rajaguguk	24	20	10	11	19	97		
74	Oktavia Hutasoit	24	11	11	10	21	67		
75	Putri Agustina Hutasoit	24	15	11	13	18	76		
76	Rafael Saro Zendrato	25	20	16	14	19	88		
77	Nandis Manurung	19	20	13	10	20	94		
78	Richard Ricardo Simanjuntak	25	14	13	12	18	55		
79	Riwuni Setia Kasih Mendrofa	25	16	14	14	20	70		
80	Irwansyah.G.S	20	14	13	12	16	85		
81	Samuel Ferdinan Silalahi	20	16	14	12	19	67		
82	Septian Partogi Sidabutar	20	15	15	11	21	58		
83	Stephani Grace Zega	22	17	13	12	20	55		
84	Yosia Theo Kumala Sinaga	25	13	15	13	18	76		
85	Andreas Sihombing	23	16	15	11	20	88		SMP Nasrani 5-Medan
86	Angel Siahaan	25	15	13	12	19	76		

87	Bolivia Renata Sianipar	25	15	15	10	20	76	
88	Daniel Manalu	24	13	13	10	19	76	
89	Devi Berliana Lubis	24	16	14	14	17	68	
90	Elfriede Dinauli Manurung	19	15	15	12	20	68	
91	Gracelia Natalia Panjaitan	22	12	14	14	17	80	
92	Hanaya Manuela Ambarita	22	14	16	14	19	82	
93	Handika Trimedia Panjaitan	20	11	12	12	20	92	
94	Hermes Aritonang	20	14	16	14	20	86	
95	Jessica Manik	21	15	16	9	18	82	
96	Johanes Sinaga	18	13	12	10	17	88	
97	Jonathan P. Manullang	23	14	23	10	17	92	
98	Joseph anugrah Sinaga	19	12	21	11	19	94	
99	Julpan Zagato	24	16	14	10	21	84	
100	Matthew Richi Sitinjak	25	13	19	12	16	78	
101	Pangeran	25	12	21	13	19	88	
102	Pebrianto Sitirus	24	15	16	12	18	66	
103	Ria Anggun Houssen Pardosi	23	17	18	11	14	80	
104	Ricardo Manurung	21	15	17	14	15	82	
105	Samuel F. F. Siregar	25	17	14	13	19	66	
106	Sandra Simanjuntak	23	16	16	13	20	74	
107	Simon Siregar	22	20	20	13	19	82	
108	Syela Rayani Sinambela	24	21	19	13	18	86	
109	Valencia Lumban Tobing	25	16	16	12	19	66	
110	Venra Siahaan	25	18	20	13	20	78	
111	Wendy P. Tambunan	23	19	18	12	19	82	
112	Yehezkiel Nainggolan	21	20	19	9	19	84	
113	Yeremia Nababan	21	20	16	12	18	66	
114	yosephine T. Tambunan	21	16	10	13	21	74	
115	Yuliana Marbun	25	12	16	12	18	74	
116	Zakharia Hutagalung	24	20	20	14	19	94	
117	Agnes Sihalofo	18	13	14	11	16	73	SMA Swasta Jambi Medan
118	Amdhito Siregar	18	12	14	11	21	76	
119	Amos Simanjuntak	20	13	20	13	17	82	
120	Aria	18	15	15	12	21	60	
121	Aril Rahmad	18	14	11	12	18	60	
122	Ayu Lestari	24	15	13	10	20	65	
123	Benget Silalahi	21	14	15	13	20	75	
124	Chairul Azhar	18	13	12	10	13	54	
125	Charles P. Simbolon	19	13	13	9	17	73	
126	Debora Sri Sinaga	25	15	18	13	19	80	
127	Desinta Siboro	21	16	13	14	16	70	
128	Devy Handayani	22	17	13	10	18	70	
129	Goklas Ria Siagian	25	15	15	12	18	75	
130	Heri Hutabarat	18	16	14	11	21	70	
131	Heruwahyudi	21	15	14	12	21	70	

132	Inne Febriani	25	14	11	9	17	58
133	Luis Sihotang	18	15	22	11	18	86
134	Marlin Yulinar Sinaga	25	13	11	14	21	60
135	Meisya Salsabila	19	14	15	12	21	75
136	Mochammad Ridwan Nasution	18	17	15	13	20	77
137	Muhammad Fikri	19	17	15	13	21	70
138	Pesta	22	14	20	11	15	85
139	Rahmad Andika	21	12	7	12	15	72
140	Richard Luistofen	23	15	15	12	21	75
141	Rini Eviani	17	13	14	10	20	75
142	Rizklinton Silalahi	23	16	19	14	22	81
143	Ruth Panggabean	25	12	12	14	19	72
144	Sania Barus	22	18	20	12	20	78
145	Selli	23	20	18	14	20	83
146	Selly Ramadhani	25	15	15	10	20	76
147	Sukriani Saliputri	17	17	14	10	20	74
148	Sulis Mentari	18	16	18	10	20	77
149	Syarani Pratiwi	20	14	13	12	16	55
150	Viky Andika	20	16	15	12	18	76
151	Wisn Steven	21	13	18	9	19	72
152	Anggi Paska Saragi	16	12	16	10	18	75
153	Bardansyah Muhammad	22	15	15	13	21	75
154	Cahya Kesya Br. Limbong	18	20	20	10	18	85
155	Dita Natasya	24	19	18	7	18	85
156	Devi S Aruan	22	14	15	10	20	75
157	Dedek Syahfitri	19	13	15	14	19	70
158	Della Fratiwi	19	13	16	10	20	75
159	Devy Sriyanti Sihotang	22	20	20	11	18	90
160	Devi Safitri	22	16	14	10	18	75
161	Delta Putri	21	16	12	11	20	70
162	Elva Putri Oktaviani	21	14	14	10	18	50
163	Elisa Putri Sitepu	23	19	19	13	20	85
164	Eulan Dame Septian	21	15	14	11	21	70
165	Elvayana Br. Silitongah	21	12	10	13	17	70
166	Fadilla Ananda	24	16	17	10	18	75
167	Firsta Nindya	23	18	19	14	21	80
168	Immanuel C Ricardo	22	14	12	13	17	75
169	Indra S Tampubolon	17	15	12	10	20	75
170	Irgi Syahfari	19	13	14	11	20	75
171	Josh Fernando Sibarani	20	17	12	12	19	70
172	Joy Andreas Ritonga	21	19	18	9	19	80
173	Joko S Ambara Situmorang	20	20	20	11	21	80
174	Luthfiyah Nabilah	22	12	19	7	17	80
175	M. Setiawan	20	20	18	12	19	90
176	Meita Rosalina Sidebang	20	11	11	14	16	65

SMA Neg.1-Sunggal
Kab.Deli Serdang

177	M. Rizky AL Dimas	21	19	20	11	18	85	
178	Nur Adela	16	12	17	9	15	75	
179	Natasya Zendrato	20	14	15	12	20	70	
180	Priscilya Prada Benufinit	16	20	18	8	19	85	
181	Priska N Br. Hasugian	22	14	15	12	22	65	
182	Putri Prameswari	21	16	20	14	20	90	
183	Putri Windriani Gulo	21	13	20	10	18	85	
184	Satria Rizky	24	13	12	13	21	75	
185	Sabrina Aisyah Pratiwi	22	16	18	11	17	90	
186	Theresia A Nainggolan	23	15	17	10	18	80	
187	Anggi br Tarigan	21	16	15	12	20	76	SMA Masehi Sibirubiru Kab. Deli Serdang
188	Ananda Sembiring	22	17	15	14	20	67	
189	Cornelius Sembiring	20	11	15	11	20	75	
190	Dea Novita Sari	22	15	22	13	20	96	
191	Devita Sari	21	15	13	13	17	71	
192	Diki Bangun	23	15	14	10	17	75	
193	Dewinta	21	14	11	12	21	75	
194	Ega Lesmana	20	10	12	13	18	76	
195	Egia Kaban	21	15	20	12	20	82	
196	Ewit Tarigan	23	15	18	11	17	75	
197	Erwinta Sembiring	21	16	19	13	21	79	
198	Edenta Barus	24	13	20	15	19	88	
199	Florida br Ginting	21	13	20	13	18	83	
200	Frelly br Barus	20	14	17	11	13	71	
201	Herianta	20	15	20	10	19	82	
202	Hermawan	23	15	20	12	21	79	
203	Igres br Sembiring	16	17	15	11	20	67	
204	Jani Ginting	23	16	20	12	21	83	
205	Jan Robet Breni S.	21	12	20	13	19	86	
206	Lilis Br Barus	22	13	15	12	18	67	
207	Monalisa br Barus	24	15	20	12	19	88	
208	Rany Febina br Simbolon	25	14	16	13	29	67	
209	Rehulina br Sembiring	21	15	21	12	22	96	
210	Rizky Nadeba Tarigan	21	12	21	13	18	96	
211	Ria Trinovega	15	10	17	9	10	83	
212	Renita Epretensia br Sembiring	22	14	20	10	19	86	
213	Ryan Permadi Kaban	18	16	19	10	21	86	
214	Tasya br Barus	22	13	19	10	19	88	
215	Tiara Appriliani	22	13	13	10	20	67	
216	Tria Agustina Br Sembiring	22	16	20	11	18	72	
217	Mentari Suci	23	16	19	13	17	80	SMP Neg.1 Percut Sei Tuan Kab. Deli Serdang
218	Stipen Simamora	22	17	20	11	20	80	
219	Riris Seitina Pasaribu	21	15	17	13	21	70	
220	Azhari	25	17	15	13	22	70	
221	Octasiana Ginting	22	12	13	14	21	84	

222	Atika Rahmah	25	12	15	13	18	50
223	Eli Zahara	25	14	14	13	18	90
224	Ryan Imanuel H.Purba	21	13	14	12	19	90
225	Noni Fariah Adelia Sri	17	12	18	9	18	80
226	Kezia Manullang	14	10	12	10	19	62
227	Irene Adventia Sitinjak	22	13	20	9	19	86
228	Ajeng Aldina Utami	23	14	20	14	19	80
229	Leli Amalia	24	13	14	14	21	40
230	Nense Emia Meganti N.	15	11	11	10	17	90
231	Kesya Sry Yanti Damanik	22	13	19	14	23	80
232	Merry Yanti Sitorus	25	13	18	9	25	75
233	Dwi S. Siregar	21	15	20	10	23	76
234	Heri Sanioso Purba	23	16	19	13	24	75
235	Mutiah	24	15	20	13	23	85
236	Imanuwel Sinaga	21	15	20	12	22	80
237	Kelpin Juhanta Rumapea	21	14	15	11	22	60
238	Nur Hajizah	20	16	18	12	24	90
239	Nurmaudila	20	16	17	10	23	76
240	Putri Dian Mayasari	20	13	19	12	23	80
241	Ayuna Y.F. Lumbangaol	23	15	12	12	24	76
242	Diki Rahman	22	14	20	11	21	82
243	Fadillah Turrahmah	23	15	20	13	20	80
244	Faza Safila	24	17	15	14	21	32
245	Dela Seprina	22	13	14	12	20	60
246	Nadia Kartika Putri	24	12	13	14	23	70
247	Cintia Melani	24	12	20	13	24	80
248	Tegar Pardosi	22	14	16	12	21	75
249	Ali Wijaya	24	15	19	12	21	80
250	Suci Nur Adawiyah	25	15	19	10	18	80
251	Dinda Putri Ayunda	24	14	18	10	19	80
252	Ade Hartatik	16	14	20	10	18	80
253	Aji Pradana	20	17	21	10	20	80
254	Andes Kristiawan Sinaga	22	16	20	12	21	70
255	Anju Saputra Sinurat	19	14	19	10	19	70
256	Arini Glesia Simbolon	22	16	22	8	20	84
257	Daniel Simbolon	21	16	16	13	20	50
258	Fahri Kholid Saragih	20	15	14	10	18	90
259	Helmiyati Tatiya	22	17	20	12	20	90
260	Hengki Panjaitan	21	13	14	11	18	80
261	Hermawan Pasaribu	21	12	14	10	19	62
262	Iwan Manurung	22	14	16	12	19	86
263	Loresnia Saripa Rodeo Sinaga	19	14	18	10	19	80
264	M. Iqbal Ramadhan	19	14	6	10	21	40
365	Mhd. Haikal Ramadhan	24	15	20	10	17	90
266	Mhd. Lazuardi Setiawan S.	19	14	19	10	21	80

SMP Neg. 1
Bandar Kalipah
Kab. Deli Serdang

267	Mhd. Syahputra Anata	22	17	11	13	19	75
268	Ola Agustina	22	11	11	11	21	76
269	Pebrianti	21	11	11	10	20	75
270	Raden Mas Sujiwo	19	13	20	10	21	85
271	Rahmi Andrian	16	13	20	11	22	80
272	Revaldo Sibatuara	17	12	12	10	19	60
273	Rezza Margaret Simbolon	21	10	20	8	19	90
274	Rifka Handayani Situmorang	22	14	14	13	19	76
275	Rikawayuni Panjaitan	21	15	16	12	21	80
276	Samuel Jericho Tampubolon	22	17	12	12	18	76
277	Saryati Reflina br. Sijabat	23	13	18	10	21	82
278	Selvi Amelia	21	14	19	8	18	80
279	Sidik Marbun	22	15	15	12	18	32
280	Sri Syahputri	22	16	8	13	17	60
281	Windi Olivia Sinurat	22	16	15	12	18	70
282	Putri Handayani	17	12	12	8	17	60
283	Anthonius	19	9	12	9	17	55
284	Devi Habibah	15	16	8	11	17	65
285	Imam Abdi Darmawan	17	13	11	9	15	50
286	Oland Billy Gilman Ginting	21	16	11	13	20	70
287	Wahyu Helpyanta Tarigan	20	15	13	11	21	65
288	Lucky Sinuraya	14	14	15	12	7	70
289	Shantomas Putra Ginting	17	11	12	10	17	55
290	Riky Cristian Sembiring	16	10	12	9	13	65
291	Ricky Nelsen Ginting	25	14	14	12	19	50
292	Ester Nia Tami Br Sinuraya	0	13	14	13	18	75
293	Carliandi Depari	24	14	14	10	19	50
294	Ira Sabila	21	14	12	12	13	55
295	Adelina Julianti	16	13	10	12	14	80
296	Devi Adriati	18	17	13	10	19	65
297	Adinda Priyamita	19	13	12	9	18	80
298	Sylvina Syaifitia	22	14	10	12	17	65
299	Madu Theresia Manurung	17	15	12	10	19	60
300	Andrian	22	15	11	11	19	60
301	Ferbilika Sadella	16	8	9	7	12	50
302	Bisma Ramadani	20	15	12	10	20	50
303	Dodi Pradana	21	15	12	10	15	50
304	Reka Jayati	20	11	11	9	14	55
305	Faradiboel Isfahani	17	10	11	9	18	80
306	Lisa Leanita Br Tarigan	21	13	11	12	17	60
307	Wahyu	16	10	13	7	15	60
308	Rizky Sitepu	21	14	12	10	18	50

SMA Neg. 1 Bohorok
Kab. Langkat

309	Daniel Pandapotan Siregar	21	15	14	10	18	50	
310	Lili Novitasari Saragih	15	12	11	11	13	65	
311	Em Aridalenta Sinuraya	24	13	18	10	20	85	
312	Ade Angga D NGL	18	9	6	5	12	65	
313	Al Fajar Juwanda	23	16	14	12	18	60	SMP Swakarya Tanjung Langkat Kab. Langkat
314	Angel Miduk Sintia Pasaribu	19	16	14	13	19	50	
315	Arya Wibowo	22	15	14	13	20	40	
316	Bagus Kurniawam Sitepu	22	14	15	13	20	85	
317	Dimas Fanji	16	16	6	12	16	50	
318	Edo Pratama Bangun	20	17	14	13	17	32	
319	Elsa	19	15	12	11	14	75	
320	Frans Didi Rismaidi	20	17	14	13	17	50	
321	Hilda Ramadani	15	14	8	13	18	50	
322	Jevanya Valentin Sitepu	15	12	11	11	17	35	
323	Juni Elpina Br. Sbr	18	16	11	11	19	60	
324	Juni Noviana Br.Sembiring	15	15	8	13	21	75	
325	Laura Amelia	21	13	12	9	19	55	
326	Leli Nurhayani Br.Ginting	22	13	14	12	18	55	
327	Leni Marlina	20	15	12	11	17	40	
328	Malna Sri Wanna Br.Sbr	22	12	12	11	16	50	
329	Mila Br P.A	15	14	11	11	20	50	
330	Mirahda	20	16	13	13	17	65	
331	Murlandari	24	15	12	12	18	45	
332	Ocha Nabila Tri Af Sari Br.Lubis	23	14	15	10	17	50	
333	Pebri Andiansyah	20	14	14	11	20	37	
334	Rangga Bahri Hts	22	16	11	10	19	72	
335	Rendi Hermansyah	17	12	6	12	18	50	
336	Rio Pramana Sbr	18	13	11	9	15	55	
337	Riski Ras Mamana	18	14	11	11	19	53	
338	Ruth Yemima Kristi	16	12	11	11	16	43	
339	Sapta Anuar Sbr	18	13	12	7	16	70	
340	Sardi	17	16	14	10	17	30	
341	Suramana Sinuraya	20	13	10	11	20	60	
342	Surya Diki Armansya	21	14	14	13	19	60	
343	Syapri Ramadhani	21	16	15	12	21	60	
344	Yuyun Kadila	15	15	6	13	20	60	
345	Zeni Monica Br.Sinulingga	15	15	8	13	18	34	
346	Nanda Sumanka P.a	23	11	14	10	17	43	
347	Alperedo Tarigan	21	14	13	10	17	65	SMA Neg.1 Barus Jahe Kab. Karo
348	Ariel Johannes Sitepu	20	15	15	11	21	85	
349	Bani Protus	23	14	12	12	18	70	
350	Bobi Regielma	24	12	15	12	19	65	
351	Deni Danuarta	21	16	13	13	19	70	
352	Desna Br Ginting	22	17	16	12	19	55	

353	Evan Singarimbun	21	16	13	10	19	67	
354	Gren Senogi Barus	21	16	14	10	18	80	
355	Melias Cristiani	21	14	14	9	19	70	
356	Meryana Sinaga	23	17	15	12	18	67	
357	Nadia Egianinta	24	14	14	10	19	85	
358	Nasla Br Tarigan	25	13	13	12	21	70	
359	Natasya	24	12	14	13	18	80	
360	Oskar Pratama	24	14	13	12	18	70	
361	Pebi Yolanda sembinging	26	15	15	10	20	85	
362	Pilivares	24	15	15	10	18	75	
363	Rika E Rika	24	14	14	10	18	65	
364	Rinda Yani Barus	22	14	11	13	21	70	
365	Ririn Amalia Tarigan	25	15	15	14	18	65	
366	Ririrn Chintya	23	17	14	12	16	67	
367	Riza Febna	25	13	14	12	18	90	
368	Sonia Br Sembiring	25	15	15	10	19	90	
369	Yohanes Sandi	26	15	11	10	19	80	
370	Zulia Safitri	24	16	12	9	18	70	
371	Zulna Marisa	21	15	15	10	18	60	
372	Abet Nego Silalahi	18	8	8	10	14	68	SMP Neg.1 Merek Kab. Simalungun
373	Aldi Winarta Simanjuntak	21	15	12	12	21	88	
374	Aldo Natanael Simanjorang	21	12	13	10	21	87	
375	Alwina Zega	22	13	12	12	20	85	
376	Ari Anto Zebua	22	16	14	12	18	87	
377	Arisma Dwiputra Tarigan	20	13	15	13	22	88	
378	Arsenius Sinaga	22	16	13	13	20	74	
379	Basten Simanjorang	19	13	14	12	20	80	
380	Bermanto Tondang	17	15	11	10	18	75	
381	Bobi Petrus Sipakkar	20	16	11	12	21	77	
382	Cinthy Ruth Hutapea	21	11	12	12	22	88	
383	Daniel Simanjorang	19	14	13	12	17	85	
384	Dedy Sitanggang	19	12	11	10	20	80	
385	Elvani Clarisa Sinaga	15	10	12	12	19	78	
386	Friski Fendi Sihombing	20	16	12	11	20	73	
387	Gabriel Daud Munthe	20	13	15	12	19	79	
388	Giska Munthe	17	15	14	9	21	76	
389	Herlan Crisdo Munthe	20	12	13	11	22	80	
390	Ilham Munthe	18	12	14	10	20	83	
391	Indri Wulandari Munthe	19	11	14	12	18	80	
392	Ishak Martin Tyas	18	10	12	12	17	85	
393	Jahya Adiputra Simbolon	20	16	12	12	19	65	
394	Jerinson Tamba	20	12	12	11	17	69	
395	Karin Tryvonnia Sitepu	18	10	12	13	20	73	
396	Leo Parulian Munthe	22	14	14	11	18	88	
397	Marulam Rejeki Tambun Saribu	22	13	15	12	22	75	

398	M.Iqzi Sinaga	25	16	12	11	20	67		
399	Novrianti Manik	19	15	11	10	21	80		
400	Ramaulina Putri Br Sinaga	19	15	14	11	22	65		
401	Ropelita Sitanggung	21	15	12	13	20	80		
402	Rospita Girsang	20	15	14	12	18	88		
403	Santro Balken Tinggi	17	14	13	10	17	85		
404	Vany Marselina Br Simanjorang	19	14	15	10	19	73		
405	Wenny Rehulina Br Sijabat	20	14	13	12	18	65		
406	Yudi Arto Sinaga	21	16	14	14	21	70		
407	Adelia Rahmadani	23	13	12	14	20	50	SMP Neg.1 Sidamanik Kab. Simalungun	
408	Andri Siahaan	18	14	15	12	18	40		
409	Alesandro Ambarita	21	16	11	12	19	30		
410	Alges	20	14	13	12	21	50		
411	Bima Anggara	18	15	10	8	19	70		
412	Bagas Permana	14	12	9	8	15	65		
413	Christian Sitio	18	12	7	12	17	60		
414	Delima Damanik	22	16	13	11	19	55		
415	Desriadi Sagala	21	13	15	10	22	80		
416	Dina Samosir	21	15	13	10	15	70		
417	Fadila Syahputri	19	17	15	11	18	65		
418	Faumi Dilamo	17	13	10	10	18	50		
419	Harry G. Sidauruk	19	14	10	9	18	68		
420	Icha Rahmadanti	23	16	12	12	21	75		
421	Immanuel Panggabean	14	12	9	8	15	80		
422	Irna Azzahra	20	15	15	11	18	65		
423	Jesi F. Panggabean	19	17	10	11	18	65		
424	Joan Silalahi	20	14	12	12	18	70		
425	Josep Ambarita	23	12	13	10	19	50		
426	Josua Damanik	22	16	12	12	21	50		
427	Liza Dabukke	17	14	15	13	17	60		
428	Margaretha Siallagan	19	12	12	12	17	95		
429	Meagle Sigiro	19	15	12	12	20	60		
430	Monalisa Sitorus	20	14	8	10	21	70		
431	Naufal Hibrizi	18	16	10	13	22	60		
432	Rangga Buana	16	16	14	11	17	40		
433	Reyzensius Manik	21	13	15	11	19	60		
434	Ritcha Nainggolan	19	14	11	13	17	55		
435	Suryani Praysiska	17	16	13	13	19	60		
436	Syafika Amara Putri	25	16	13	11	20	60		
437	Vanisya Aprilia Damanik	23	16	11	11	21	55		
438	Zaka Ria Saragih	17	13	13	12	18	70		
439	Adityo Siahaan	21	16	12	13	20	60		SMA Neg 1 Pollung Kab. Humbang Hasundutan
440	Agustin Lumbangaol	21	16	14	12	19	72		
441	Alponso Manik	23	14	12	13	18	72		
442	Aristam lumbangaol	22	15	15	12	21	62		

443	Audy Sitinjak	18	8	9	13	13	70
444	Citra Pureba	21	16	14	14	20	62
445	Epi Lumbanbatu	25	12	15	13	18	72
446	Elisabeth Silaban	21	9	10	9	20	72
447	Elsa Munthge	20	13	14	10	18	46
448	Esa L:umbangaol	24	15	13	13	17	44
449	Helmalia P Sihotrang	19	15	12	12	16	72
450	Indri Nainggolan	25	15	14	11	17	52
451	Jopenri Sinaga	22	13	14	12	18	60
452	Joseph Sinaga	22	15	15	12	17	82
453	Josua A. Matondang	20	14	14	11	16	52
454	Junita Lumbangaol	17	13	10	12	18	64
455	Kandra Lum,bangaol	23	14	14	14	21	82
456	Lombok Simarmata	23	16	13	14	22	96
457	Lipint banjarnahor	20	14	12	13	21	70
458	Marito Simbolon	25	12	7	14	21	70
459	Melpa Lumbangaol	22	13	11	12	18	68
460	Novembri Lumbangaol	22	15	13	13	21	62
461	Olan Geraldo	23	16	11	12	16	82
462	Pelita Lumbangaol	25	13	12	13	20	54
463	Rani Sihite	22	11	14	12	18	60
464	Yonif P Waruhu	22	12	14	11	18	60
465	Riodanto Simamora	23	12	15	12	19	84
466	Romaito Siagian	22	15	13	13	18	82
467	Royen Lumbangaol	23	15	12	12	17	74
468	S. Royen Banjarnahor	21	9	10	9	20	86
469	Ridwan Siregar	22	14	15	14	11	78
470	Santi Lumbanbatu	23	14	15	14	17	64
471	Tio N. Lumbangaol	25	16	14	12	18	92
472	Tio R. Banjarnahor	23	15	8	12	18	60
473	Yeni F. Purba	22	14	13	9	18	82
474	Agustinus P. Berutu	22	15	14	10	20	55
475	Antri Sagala	20	16	15	12	18	57
476	Ares Timson Sihotang	19	15	14	11	20	54
477	Bremo G. B. Boang Manalu	20	15	15	12	21	80
478	Dermina Bancin	21	16	15	10	19	57
479	Grace Peronika Manullang	22	15	12	12	21	57
480	Hizkia Boang Manalu	24	15	14	14	21	58
481	Imda Sari Sinamo	22	16	15	14	18	53
482	Iqnasius Breman Tuanta Ras Ujung	20	16	15	14	21	58
483	Irvan R. Marbun	20	15	14	14	19	79
484	Jeki Jentra Situmorang	19	15	13	11	21	53
485	Jeslin Yohana Marbun	21	15	15	12	21	58
486	Josua Paska L. Habeahan	19	12	13	14	20	55
487	Joy Pratama Tumangger	23	13	13	11	21	65

SMP Neg.1 Salak
Kab. Pakphak Barat

488	Kristin Berutu	23	13	14	11	21	79	
489	Lewi Ayu Sari Padang	23	13	13	13	21	71	
490	Lina Suriate Berutu	20	15	13	11	16	56	
491	Mawar Intan Natalia solin	21	17	15	12	21	57	
492	Mixel Samosir	20	11	14	12	16	42	
493	Nurbaiki Benedikta Simbaon	21	12	15	10	18	58	
494	Pera Salli Manalu	21	13	13	11	16	71	
495	Risda Yanti Situmorang	24	12	15	10	21	42	
496	Roniati Padang	23	14	14	12	22	58	
497	Samsier Berutu	15	13	14	12	19	41	
498	Sanroi Berutu	19	14	14	12	22	42	
499	Sri Salsabila Natasya Tumangger	23	13	14	11	21	69	
500	Veri Yanto Sinaga	20	14	14	12	20	50	
501	Arjem Siregar	20	15	11	10	20	34	SMP Bahal Batu Kab. Tapanuli Utara
502	Irwan Hutabarat	22	14	11	11	22	34	
503	Nicollas A Sihombing	23	15	12	12	23	28	
504	Vranco B Sihombing	22	13	12	10	22	30	
505	Raymon Situmeang	19	15	7	11	19	36	
506	Alda Pasaribu	21	14	10	12	21	38	
507	Mael Pasaribu	21	13	13	13	21	7	
508	Gerson Sihombing	21	13	13	9	21	7	
509	Marcel Sihombing	20	15	7	11	20	26	
510	Risky Sihombing	21	15	13	11	21	31	
511	Agustina Panjaitan	21	14	13	11	21	50	
512	Sondang V Sihombing	22	15	15	11	19	22	
513	Sanly V Situmeang	21	12	13	11	19	19	
514	Paiwan Simanjuntak	22	14	14	10	18	31	
515	Yosevin Sihombing	21	15	14	9	20	34	
516	Natanae Simanjuntak	20	16	13	10	19	30	
417	Novrida Simanjuntak	19	15	11	10	19	23	
518	Yunita Pasaribu	23	15	14	11	18	18	
519	Agnes Sihombing	18	16	12	12	18	34	
520	Riayati Sihombing	21	14	13	10	20	20	
521	Selamat J Situmeang	21	15	13	11	20	32	
522	Joko Batubara	21	16	13	9	21	33	
523	Simon Sihombing	20	14	12	10	20	23	
524	Armadya LumbanToruan	21	14	14	11	21	21	
525	Bobi Sihombing	22	15	15	10	18	30	
526	Alex C. Silaban	21	19	15	15	20	67	SMA Neg. Parmonangan Kab. Tapanili Utara
527	Amelia Manalu	18	16	13	13	22	76	
528	Christian Manalu	21	16	11	13	21	67	
529	Daud Martua Simamora	21	16	13	15	23	71	
530	Denyati Silitonga	21	18	15	13	23	62	
531	Depi Maharani Hutasoit	20	16	14	12	19	62	
532	Diana Simamora	20	16	15	14	25	67	

533	Dorgis Asi Manalu	21	18	16	13	19	57
534	Ella Febriyanti Silitonga	20	16	15	13	23	76
535	Elsa Winda Silaban	21	17	13	15	21	67
536	Eprida Silaban	23	18	10	15	22	76
537	Gabriel Silaban	22	16	12	15	23	52
538	Hendra Saputra Manalu	21	17	15	15	22	86
539	Hiskia Arel Marbun	20	16	14	13	22	71
540	Hotmaida Manalu	22	17	17	14	21	76
541	Hotmarito Manalu	21	17	16	14	22	76
542	Isma Rapmaria Silitonga	20	17	14	12	18	76
543	Josporman Manalu	21	16	16	15	21	65
544	Joy Manalu	21	16	15	13	21	71
545	Kelvin Manalu	20	15	15	12	23	76
546	Lasma Hottua Silitonga	21	17	15	12	21	67
547	Linca Uli Manalu	20	16	15	11	22	71
548	Latifa Elimpia Manalu	22	15	14	15	23	81
549	Meitri Capres Manalu	20	15	15	12	21	81
550	Mekar Sari Simamora	21	17	13	15	21	76
551	Nora Anelia C. Manalu	22	16	10	13	19	67
552	Onma Boy Sudy Manalu	22	14	12	13	20	80
553	Priska Julita Manalu	23	16	15	12	20	85
554	Purnama Manalu	19	16	13	14	21	86
555	Raja Eston Sinaga	20	15	15	14	21	75
556	Ray Kesya M. Manalu	21	16	11	13	21	56
557	Suriani Sitanggung	22	17	15	12	20	71
558	Tison Arios P. Manalu	21	18	14	13	23	80
559	Toti Pasaribu	21	15	13	12	22	80
560	Yosua Silaban	22	16	14	13	21	80

Explanation:

X1 : Concept Understanding

X2 ; Mathematical communication

X3: Creativity

X4 : Problem solving

X5 : Reasoning

Y : Math skills