MATH 1

Name _____

Date _____ *Clusters 1-5*

15	21	11	45
+21	+13	+15	+11
34	14	31	21
+11	+41	+12	+14
36	34	26	56
-15	-23	-15	-45
45	55	43	34
-11	-41	-31	-21

CLUSTER 1

1	2
+1	-1

CLUSTER 2

1	2
+2	+1

3	3
-1	-2

CLUSTER 3

1	3
+3	+1

4	4
-1	-3

CLUSTER 4

1	4
+4	+1

5	5
-1	-4

CLUSTER 5

1	5
+5	+1

6	6
-1	-5

Name_____

Date_____ *CLUSTERS 3-7*

17	11
+61	+34

64
-13

15	17
+71	+51

58
-17

14	161
+51	+713

75
-14

587
-416

31	351
14	116
+11	+111

684
-511

CLUSTER 3

1	3
+3	+1

4	4
-1	-3

CLUSTER 4

1	4
+4	+1

5	5
-1	-4

CLUSTER 5

1	5
+5	+1

6	6
-1	-5

CLUSTER 6

1	6
+6	+1

7	7
-1	-6

CLUSTER 7

1	7
+7	+1

8	8
-1	-7

Clusters 4-9

Name _____ **Date** _____

CLUSTER 4
1   4
+4   +1
5   5
-1   -4

```
  78
- 17
-----
```

CLUSTER 9
1   9
+9   +1
10   10
-1   -9

```
  65
- 51
-----
```

CLUSTER 5
1   5
+5   +1
6   6
-1   -5

```
  17
+ 41
-----
```

```
  68
- 11
-----
```

```
  14
+ 91
-----
```

```
   5 10
   6̶0̶
- 41
-----
```

```
  57
+ 11
-----
```

```
  56
+ 11
-----
```

```
  109
-  18
-----
```

```
  81
+ 16
-----
```

```
  90
- 79
-----
```

```
  109
+  51
-----
```

```
  91
+ 17
-----
```

```
  59
- 41
-----
```

```
  411
+ 158
-----
```

```
  96
- 81
-----
```

```
  601
+ 189
-----
```

CLUSTER 6
1   6
+6   +1
7   7
-1   -6

```
  107
-  96
-----
```

CLUSTER 7
1   7
+7   +1
8   8
-1   -7

```
  657
- 516
-----
```

CLUSTER 8
1   8
+8   +1
9   9
-1   -8

Name _____

Date _____   *Clusters 6-10*

FACTS

CLUSTER 10

2	4
+2	-2

CLUSTER 6

1	6
+6	+1
7	7
-1	-6

CLUSTER 7

1	7
+7	+1
8	8
-1	-7

CLUSTER 8

1	8
+8	+1
9	9
-1	-8

CLUSTER 9

1	9
+9	+1
10	10
-1	-9

```
 72     89     94     89
+12    +11    -12    -78


 18     81     79     77
+91    +16    -18    -16


                108    109
 61    121    - 17   - 91
+16   +927

                 78    108
               -61    - 11

 61    161
 17    816
+11   +111    104     44
             - 92    -22
```

Name_____ **Date** _____

CLUSTER 11

```
  2      3
 +3     +2

  5      5
 -2     -3
```

```
  34
 +22
```

CLUSTER 10

```
  2      4
 +2     -2
```

```
  22
 +44
```

CLUSTER 12

```
  2      4
 +4     +2

  6      6
 -2     -4
```

```
  23        42        32        43        23
 +42       +22       +23       +22       +22
```

```
  64        45        65        56        56
 -22       -22       -43       -34       -22
```

```
 322       242       423       322       224
+242      +423      +232      +223      +342
```

```
 546       564       656       656       554
-322      -222      -234      -432      -322
```

Clusters 13-15

Name _____ **Date** _____

52 +27	62 +25	76 +22	27 +62	22 +56
89 -67	97 -22	78 -52	77 -25	98 -76

CLUSTER 13

2	5
+5	+2
7	7
-2	-5

567
+222

CLUSTER 14

2	6
+6	+2
8	8
-2	-6

765
+222

CLUSTER 15

2	7
+7	+2
9	9
-2	-7

799 -272	977 -225	898 -226	567 -345	878 -252
252 +727	275 +522	226 +562	277 +622	272 +526

Name _____ **Date** _____

Clusters 10-15

22 +56	26 +42	24 +72	72 +22

CLUSTER 10

2	4
+2	-2

57 -35	58 -32	86 -62	64 -42

CLUSTER 11

2	3
+3	+2

5	5
-2	-3

252 +324	422 +226	762 +225	322 +273

CLUSTER 12

2	4
+4	+2

6	6
-2	-4

252 +426	724 +252	422 +252	272 +627

CLUSTER 13

2	5
+5	+2

7	7
-2	-5

764 -522	295 -273	657 -432	769 -227

CLUSTER 14

2	6
+6	+2

8	8
-2	-6

CLUSTER 15

2	7
+7	+2

9	9
-2	-7

MATH

8

Name _____

Date _____ *Clusters 10-15*

227 +452	236 +322	242 +726
679 -227	558 -236	968 -242
7,243 +2,522	2,622 +3,272	2,225 +2,462
9,765 -7,243	5,894 -2,622	4,687 -2,225

CLUSTER 10

$$2 \quad\quad 4$$
$$+2 \quad\quad -2$$

CLUSTER 11

$$2 \quad\quad 3$$
$$+3 \quad\quad +2$$

$$5 \quad\quad 5$$
$$-2 \quad\quad -3$$

CLUSTER 12

$$2 \quad\quad 4$$
$$+4 \quad\quad +2$$

$$6 \quad\quad 6$$
$$-2 \quad\quad -4$$

CLUSTER 13

$$2 \quad\quad 5$$
$$+5 \quad\quad +2$$

$$7 \quad\quad 7$$
$$-2 \quad\quad -5$$

CLUSTER 14

$$2 \quad\quad 6$$
$$+6 \quad\quad +2$$

$$8 \quad\quad 8$$
$$-2 \quad\quad -6$$

CLUSTER 15

$$2 \quad\quad 7$$
$$+7 \quad\quad +2$$

$$9 \quad\quad 9$$
$$-2 \quad\quad -7$$

Name _____ **Date** _____

CLUSTER 11

2	3
+3	+2

5	5
-2	-3

$$798 - 222$$

CLUSTER 16

2	8
+8	+2

10	10
-2	-8

$$667 - 242$$

CLUSTER 12

2	4
+4	+2

6	6
-2	-4

$$276 + 822$$ $$109 - 22$$ $$312 + 258$$ $$598 - 326$$ $$238 + 422$$

$$182 + 527$$ $$1,078 - 252$$ $$722 + 237$$ $$109 - 87$$ $$185 + 622$$

$$642 + 228$$ $$105 - 82$$ $$522 + 256$$ $$886 - 262$$ $$842 + 224$$

CLUSTER 13

2	5
+5	+2

7	7
-2	-5

$$105 - 83$$

CLUSTER 14

2	6
+6	+2

8	8
-2	-6

$$105 - 22$$

CLUSTER 15

2	7
+7	+2

9	9
-2	-7

Name _____ **Date** _____

```
  187      897      522      696      825
+ 822    - 222    + 276    - 224    + 262
```

```
  382              262              242
+ 226            + 426            + 825
```

CLUSTER 12
```
  2      4
+ 4    + 2

  6      6
- 2    - 4
```

CLUSTER 13
```
  2      5
+ 5    + 2

  7      7
- 2    - 5
```

```
  712    1,087      418    1,098      267
+ 258    - 265    + 252    - 276    + 422
```

```
  852    1,079      272    1,077      124
+ 227    - 222    + 627    - 225    + 482
```

CLUSTER 14
```
  2      6
+ 6    + 2

  8      8
- 2    - 6
```

```
1,079
- 857
```

CLUSTER 15
```
  2      7
+ 7    + 2

  9      9
- 2    - 7
```

```
1,077
- 852
```

CLUSTER 16
```
  2      8
+ 8    + 2

 10     10
- 2    - 8
```

MATH

Subtraction Clusters 10s-16s

Name _____ **Date** _____

$$
\begin{array}{r} 657 \\ -432 \\ \hline \end{array}
\qquad
\begin{array}{r} 758 \\ -526 \\ \hline \end{array}
\qquad
\begin{array}{r} 107 \\ -\ 25 \\ \hline \end{array}
$$

$$
\begin{array}{r} 947 \\ -225 \\ \hline \end{array}
\qquad
\begin{array}{r} 968 \\ -722 \\ \hline \end{array}
\qquad
\begin{array}{r} 1,048 \\ -\ 826 \\ \hline \end{array}
$$

$$
\begin{array}{r} 856 \\ -622 \\ \hline \end{array}
\qquad
\begin{array}{r} 759 \\ -522 \\ \hline \end{array}
\qquad
\begin{array}{r} 758 \\ -532 \\ \hline \end{array}
$$

$$
\begin{array}{r} 1,064 \\ -\ 862 \\ \hline \end{array}
\qquad
\begin{array}{r} 679 \\ -427 \\ \hline \end{array}
\qquad
\begin{array}{r} 1,060 \\ -\ 220 \\ \hline \end{array}
$$

CLUSTER 10s

$$
\begin{array}{r} 4 \\ -2 \\ \hline \end{array}
$$

CLUSTER 11s

$$
\begin{array}{r} 5 \\ -2 \\ \hline \end{array}
\quad
\begin{array}{r} 5 \\ -3 \\ \hline \end{array}
$$

CLUSTER 12s

$$
\begin{array}{r} 6 \\ -2 \\ \hline \end{array}
\quad
\begin{array}{r} 6 \\ -4 \\ \hline \end{array}
$$

CLUSTER 13s

$$
\begin{array}{r} 7 \\ -2 \\ \hline \end{array}
\quad
\begin{array}{r} 7 \\ -5 \\ \hline \end{array}
$$

CLUSTER 14s

$$
\begin{array}{r} 8 \\ -2 \\ \hline \end{array}
\quad
\begin{array}{r} 8 \\ -6 \\ \hline \end{array}
$$

CLUSTER 15s

$$
\begin{array}{r} 9 \\ -2 \\ \hline \end{array}
\quad
\begin{array}{r} 9 \\ -7 \\ \hline \end{array}
$$

CLUSTER 16s

$$
\begin{array}{r} 10 \\ -2 \\ \hline \end{array}
\quad
\begin{array}{r} 10 \\ -8 \\ \hline \end{array}
$$

CLUSTERS 12-17

Name _____ **Date** _____

CLUSTER 12		
2	4	
+4	+2	
6	6	
-2	-4	

$$478 - 226$$

CLUSTER 17		
2	9	
+9	+2	
11	11	
-2	-9	

$$1,149 - 922$$

CLUSTER 13		
2	5	
+5	+2	
7	7	
-2	-5	

$$92 + 24$$

$$\overset{8\ 11}{9\!\!\!/7\!\!\!/} - 29$$

$$82 + 29$$

$$1,198 - 272$$

$$262 + 628$$

$$\overset{1}{5}8 + 22$$

$$80 - 52$$

$$412 + 269$$

$$107 - 25$$

$$926 + 252$$

$$\overset{1}{2}62 + 528$$

$$\overset{7\ 11}{7\!\!\!/8\!\!\!/1\!\!\!/} - 522$$

$$242 + 729$$

$$90 - 68$$

$$185 + 422$$

CLUSTER 14		
2	6	
+6	+2	
8	8	
-2	-6	

$$990 - 68$$

CLUSTER 15		
2	7	
+7	+2	
9	9	
-2	-7	

$$991 - 729$$

CLUSTER 16		
2	8	
+8	+2	
10	10	
-2	-8	

Name _____ **Date** _____

```
    1
N  16
E  62
W +  2
```

```
  42          22
  25         232
 +22        +802
```

```
  22          22         206
  23          75          22
 +22         +22        +970
```

```
  57          22         172
  22          65         626
 +22         +22        +  20
```

```
  72         252          32
  24         924         226
 +22        + 22        + 22
```

CLUSTER 10a
2
+2

CLUSTER 11a
2   3
+3   +2

CLUSTER 12a
2   4
+4   +2

CLUSTER 13a
2   5
+5   +2

CLUSTER 14a
2   6
+6   +2

CLUSTER 15a
2   7
+7   +2

CLUSTER 16a
2   8
+8   +2

CLUSTER 17a
2   9
+9   +2

Name _____ **Date** _____

CLUSTER 13

2	5
+5	+2
7	7
-2	-5

```
 689
-362
```

```
 922
+238
```

```
 768
-536
```

CLUSTER 14

2	6
+6	+2
8	8
-2	-6

```
 229
+532
```

```
 1,180
-  958
```

CLUSTER 18

3	6
+3	-3

```
 119
-  92
```

```
 127
+582
```

```
 262
+928
```

```
 118
-  22
```

```
 263
+723
```

```
 109
-  87
```

```
 522
+276
```

```
 348
+322
```

```
 970
-732
```

```
 629
+232
```

```
 808
-222
```

```
 842
+229
```

CLUSTER 15

2	7
+7	+2
9	9
-2	-7

```
 796
-223
```

CLUSTER 16

2	8
+8	+2
10	10
-2	-8

```
 817
-423
```

CLUSTER 17

2	9
+9	+2
11	11
-2	-9

CLUSTERS 14-19

Name _____ **Date** _____

CLUSTER 14
2   6
+6   +2
8   8
-2   -6

$$987 - 264$$

CLUSTER 19
3   4
+4   +3
7   7
-3   -4

$$976 - 243$$

CLUSTER 15
2   7
+7   +2
9   9
-2   -7

$$293 + 423$$

$$1{,}180 - 938$$

$$79 + 22$$

$$117 - 93$$

$$722 + 248$$

$$362 + 428$$

$$811 - 202$$

$$236 + 732$$

$$910 - 708$$

$$242 + 736$$

$$238 + 632$$

$$990 - 762$$

$$459 + 322$$

$$908 - 222$$

$$372 + 329$$

CLUSTER 16
2   8
+8   +2
10   10
-2   -8

$$978 - 242$$

CLUSTER 18
3   6
+3   -3

$$771 - 432$$

CLUSTER 17
2   9
+9   +2
11   11
-2   -9

Name _____ **Date** _____

CLUSTER 15
2   7
+7   +2
9   9
-2   -7

$$109 - 87$$

CLUSTER 20
3   5
+5   +3
8   8
-3   -5

$$698 - 375$$

CLUSTER 16
2   8
+8   +2
10   10
-2   -8

$$238 + 732$$
$$90 - 32$$
$$543 + 335$$
$$1{,}181 - 239$$
$$739 + 232$$

$$529 + 342$$
$$897 - 523$$
$$233 + 953$$
$$107 - 24$$
$$212 + 389$$

$$237 + 852$$
$$1{,}176 - 943$$
$$248 + 732$$
$$80 - 38$$
$$233 + 745$$

CLUSTER 17
2   9
+9   +2
11   11
-2   -9

$$918 - 325$$

CLUSTER 18
3   6
+3   -3

$$869 - 332$$

CLUSTER 19
3   4
+4   +3
7   7
-3   -4

	MATH **17**
CLUSTER 1a 1 +1	

CLUSTER 1a
1
+1

CLUSTER 2a
1   2
+2 +1

CLUSTER 3a
1   3
+3 +1

CLUSTER 4a
1   4
+4 +1

CLUSTER 5a
1   5
+5 +1

CLUSTER 6a
1   6
+6 +1

CLUSTER 7a
1   7
+7 +1

CLUSTER 8a
1   8
+8 +1

CLUSTER 9a
1   9
+9 +1

CLUSTER 10a
2
+2

MATH   17

Name _____

Date _____

Addition Review Clusters 1-20

$$
\begin{array}{r} 125 \\ +543 \end{array}
\qquad
\begin{array}{r} 422 \\ +286 \end{array}
\qquad
\begin{array}{r} 102 \\ +988 \end{array}
$$

$$
\begin{array}{r} 229 \\ +742 \end{array}
\qquad
\begin{array}{r} 272 \\ +319 \end{array}
\qquad
\begin{array}{r} 339 \\ +512 \end{array}
$$

$$
\begin{array}{r} 609 \\ +271 \end{array}
\qquad
\begin{array}{r} 215 \\ +862 \end{array}
\qquad
\begin{array}{r} 701 \\ +249 \end{array}
$$

$$
\begin{array}{r} 131 \\ 141 \\ 215 \\ +322 \end{array}
\qquad
\begin{array}{r} 111 \\ 231 \\ 522 \\ +123 \end{array}
\qquad
\begin{array}{r} 263 \\ 322 \\ 201 \\ +222 \end{array}
$$

CLUSTER 11a
2   3
+3 +2

CLUSTER 12a
2   4
+4 +2

CLUSTER 13a
2   5
+5 +2

CLUSTER 14a
2   6
+6 +2

CLUSTER 15a
2   7
+7 +2

CLUSTER 16a
2   8
+8 +2

CLUSTER 17a
2   9
+9 +2

CLUSTER 18a
3
+3

CLUSTER 19a
3   4
+4 +3

CLUSTER 20a
3   5
+5 +3

MATH

18

CLUSTERS 16-21

Name _____ **Date** _____

CLUSTER 16

```
  2      8
 +8     +2

 10     10
 -2     -8
```

```
  109
 - 86
```

CLUSTER 21

```
  3      6
 +6     +3

  9      9
 -3     -6
```

```
  698
 -365
```

CLUSTER 17

```
  2      9
 +9     +2

 11     11
 -2     -9
```

```
  328        90       236     1,181       639
 +362       -32      +953    - 239       +332
```

```
  483       879       233       107       312
 +326      -533      +953      - 24      +398
```

```
  263     1,167       349        80       433
 +834     - 934      +632       -38      +365
```

CLUSTER 19

```
  3      4
 +4     +3

  7      7
 -3     -4
```

```
  918
 -325
```

CLUSTER 18

```
  3      6
 +3     -3
```

```
  689
 -332
```

CLUSTER 20

```
  3      5
 +5     +3

  8      8
 -3     -5
```

CLUSTERS REVIEW 10-11, 13-14, 16-17

Name _____ **Date** _____

CLUSTER 11
2   3
+3   +2
5   5
-2   -3

```
  845
 -623
```

CLUSTER 13
2   5
+5   +2
7   7
-2   -5

```
  90
 -68
```

CLUSTER 14
2   6
+6   +2
8   8
-2   -6

```
  22        607        232        81         58
 +82       -225       +526       -59        +22
```

```
 123        818        618        587        122
+592       -292       +232       -222       +583
```

```
 352      1,011        219        890        212
+226      - 802       +932       -628       +329
```

CLUSTER 16
2   8
+8   +2
10   10
-2   -8

```
  550
 -328
```

CLUSTER 10
2   4
+2   -2

```
  511
 -222
```

CLUSTER 17
2   9
+9   +2
11   11
-2   -9

Name _____ **Date** _____

```
 116
- 93
____
```

```
 790
-437
____
```

```
  23      107       33      120       25
+47      -74      +74      -93      +93
___      ____      ___      ____      ___
```

```
 433      108      349      698      352
+363      -35     +732     -335     +439
____      ___     ____     ____     ____
```

```
 736      119      327      981     2,943
+353      -26     +533     -632     6,235
____      ___     ____     ____     _____
```

```
 879
-333
____
```

```
 110
- 37
____
```

CLUSTERS 18-23

```
  36        87                      978       353
 +33       -54                     -343      +336
```

CLUSTER 23
3   8
+8   +3
11   11
-3   -8

```
 448       990       335       117       428
+333      -637      +463      - 33      +353


 323       681       827       720       263
+847      -338      +343      -387      +738


 233       920       636       989       436
+685      -533      +373      -633      +353
```

CLUSTER 19	CLUSTER 20	CLUSTER 18	CLUSTER 21	CLUSTER 22
3 4	3 5	3 6	3 6	3 7
+4 +3	+5 +3	+3 -3	+6 +3	+7 +3
7 7	8 8		9 9	10 10
-3 -4	-3 -5		-3 -6	-3 -7

CLUSTERS 19-24

Name _____ **Date** _____

<table>
<tr><td>

CLUSTER 19

3	4
+4	+3
7	7
-3	-4

</td><td>

98
-35

</td><td>

CLUSTER 24

3	9
+9	+3
12	12
-3	-9

</td><td>

812
-489

</td><td>

CLUSTER 20

3	5
+5	+3
8	8
-3	-5

</td></tr>
</table>

```
 365        91       629     1,280       283
+433       -38      +393    - 333       +934
```

```
 234       127       273       119       543
+583      - 33      +637       -83      +338
```

```
 223     1,182       327     1,291       283
+679    - 849       +543    - 933       +939
```

<table>
<tr><td>

CLUSTER 21

3	6
+6	+3
9	9
-3	-6

</td><td>

1,098
- 365

</td><td>

CLUSTER 22

3	7
+7	+3
10	10
-3	-7

</td><td>

819
-336

</td><td>

CLUSTER 23

3	8
+8	+3
11	11
-3	-8

</td></tr>
</table>

REVIEW CLUSTERS 9, 12, 15, 18-19

Name _____

Date _____

324 +373	143 +924	697 -324	100 - 29
493 +214	243 +433	707 -293	670 -321
127 +942	132 +947	796 -474	979 -247
24 73 +912	909 + 91	809 -312	710 -391

FACTS

CLUSTER 9

$$\begin{array}{cc} 1 & 9 \\ +9 & +1 \end{array}$$

$$\begin{array}{cc} 10 & 10 \\ -1 & -9 \end{array}$$

CLUSTER 12

$$\begin{array}{cc} 2 & 4 \\ +4 & +2 \end{array}$$

$$\begin{array}{cc} 6 & 6 \\ -2 & -4 \end{array}$$

CLUSTER 15

$$\begin{array}{cc} 2 & 7 \\ +7 & +2 \end{array}$$

$$\begin{array}{cc} 9 & 9 \\ -2 & -7 \end{array}$$

CLUSTER 18

$$\begin{array}{cc} 3 & 6 \\ +3 & -3 \end{array}$$

CLUSTER 19

$$\begin{array}{cc} 3 & 4 \\ +4 & +3 \end{array}$$

$$\begin{array}{cc} 7 & 7 \\ -3 & -4 \end{array}$$

MATH

CLUSTERS 20-25

Name _____ **Date** _____

CLUSTER 20

3	5
+5	+3
8	8
-3	-5

```
  888
- 354
```

CLUSTER 25

4	8
+4	-4

```
  990
- 637
```

CLUSTER 21

3	6
+6	+3
9	9
-3	-6

```
  734
+ 364
```

```
  901
- 538
```

```
  55
  33
+ 33
```

```
  991
- 343
```

```
  29
+ 93
```

```
  836
+ 353
```

```
 1,031
-  698
```

```
  1,320
-  383
```

```
  728
+ 353
```

```
  324
   54
+ 433
```

```
  343
+ 738
```

```
  111
-  73
```

```
  892
- 459
```

```
  3,223
+ 8,697
```

CLUSTER 22

3	7
+7	+3
10	10
-3	-7

```
  112
-  33
```

CLUSTER 23

3	8
+8	+3
11	11
-3	-8

```
  1,191
-   843
```

CLUSTER 24

3	9
+9	+3
12	12
-3	-9

CLUSTERS 10, 13-14, 16-17

Name _____

Date _____

26 +22	592 +222	487 -262	921 -292
42 +28	118 +592	791 -529	810 -582
172 +529	625 +262	920 -622	488 -262
912 +268	219 +822	507 -282	781 -252

FACTS

CLUSTER 10

2	4
+2	-2

CLUSTER 13

2	5
+5	+2
7	7
-2	-5

CLUSTER 14

2	6
+6	+2
8	8
-2	-6

CLUSTER 16

2	8
+8	+2
10	10
-2	-8

CLUSTER 17

2	9
+9	+2
11	11
-2	-9

CLUSTERS 21-26

Name _____ **Date** _____

```
CLUSTER 21
  3     6
 +6    +3

  9     9
 -3    -6
```

```
  999
 -635
```

```
CLUSTER 26
  4     5
 +5    +4

  9     9
 -4    -5
```

```
 1,300
 - 357
```

```
CLUSTER 22
  3     7
 +7    +3

 10    10
 -3    -7
```

```
  354
 +644
```

```
  900
 -447
```

```
  990
 -343
```

```
  423
 +568
```

```
  525
  384
 +303
```

```
  837
 +353
```

```
  931
 -498
```

```
 1,202
 - 369
```

```
  323
  479
```

```
  523
 +397
```

```
 1,020
 - 533
```

```
  407
  430
 +353
```

```
  989
 - 544
```

```
  395
 +434
```

```
CLUSTER 23
  3     8
 +8    +3

 11    11
 -3    -8
```

```
  991
 -448
```

```
CLUSTER 25
  4     8
 +4    -4
```

```
 1,232
 -393
```

```
CLUSTER 24
  3     9
 +9    +3

 12    12
 -3    -9
```