Enrichment

Packet #30

Due: Monday

NAME: _____

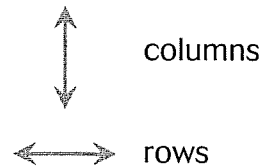Name _____

Number Search

Use the number chart below to answer each question. Use only
adjacent digits, that is, digits next to each other, in a row or column to
make a number. Rows are read left to right. Columns are read top to bottom.

	K	L	M	N	O	P	Q	R	S	T
A	3	2	1	1	4	2	2	8	4	5
B	5	4	1	3	2	2	1	1	1	4
C	4	2	6	7	0	6	8	8	6	4
D	3	9	4	2	3	5	5	3	2	3
E	2	7	1	0	6	2	3	8	3	2
F	7	1	3	5	7	9	8	5	8	5
G	1	9	5	9	1	5	6	7	4	9
H	1	2	2	1	7	6	6	3	7	8
I	7	3	1	2	6	9	2	3	5	2
J	1	9	2	5	9	9	2	3	8	5

columns

rows

1. Which column has the four-digit number of the least value? _____

2. Which row has the longest string of numbers in counting order? _____

3. Which row has the three-digit number of the greatest value? _____

4. In what column can the palindrome with the greatest number of digits be found?
   (A palindrome is a number that reads the same forward and backward) _____

5. Which row has the longest string of odd numbers in counting order? _____

6. In what row can the palindrome with the greatest number of digits be found? _____

7. Which column has the longest string of numbers in consecutive order? _____

8. Which row has the five-digit number of the least value? _____

Name_____

Planet Facts

This table gives the statistics of some planets. Use the table and strategies you know to answer the questions.

	Mercury	Venus	Earth
Average distance from the Sun (millions of miles)	about 36	about 67	about 93
Revolution around the Sun (days)	88.0 days	224.7 days	365.26 days
Mass (Earth = 1)	0.055	0.814	1
Diameter at Equator	3,031 mi	7,521 mi	7,926 mi

1. About how far is Earth from the Sun?

  a. 93 miles   **b.** 939,000 miles   **c.** 93,000,000 miles

2. Which planet has the smallest mass compared to Earth? _____

3. Which of the following best describes the relationship of Earth's and Mercury's diameters?

  a. Earth's diameter is more than twice the size of Mercury's.
  b. Earth's diameter is about half the size of Mercury's.
  c. Earth's diameter is almost the same size as Mercury's.

4. The planet Mars takes 687 days to make a single orbit (revolution) around the Sun. Which number sentence would you use to find out how much longer this orbit takes than the orbit of Mercury?

  a. 687 + 88   **b.** 687 × 88   **c.** 687 − 88

5. Which planet is closest to Venus? _____

6. Which numbers given in the table are estimates? Explain how you know.

_____

_____

_____

7. One calendar year on Earth is 365 days, except for leap years, when the year has 366 days. Are 365 and 366 estimates of the actual time it takes Earth to revolve around the sun? Explain.

_____

_____

Finding Patterns

The sums in Set A are all related in some way. The sums in Set B are also related in some way. Find each sum and try to find the relationship in each set.

Set A

336 + 451	69 + 476	23,756 + 8,567	7,611 + 6,530
42,385 + 52,564	91 + 90	4,999,999 + 656,566	22,401 + 15,982

Set B

283 + 131	574 + 264	29,328 + 34,308	8,653 + 20,639
39,743 + 44,095	196 + 76	1,246,749 + 3,298,705	56,582 + 5,034

Circle the sums in Set C that belong in Set A. Write B next to those that belong in Set B.

Set C

691 + 278 969	86 + 348 434	25,000 + 47,727 72,727	15,789 + 11,483 27,272
8,927 + 7,234 16,161	499 + 26 525	3,089,102 + 749,281 3,838,383	27,532 + 27,013 54,545

Missing Number Hunt

Fill in the boxes to complete the sums.

1.
```
    1  4 . 3 □
  +    7 .□ 0
  ─────────────
   □  1 . 8  6
```

2.
```
    5 . 1  6
  - □ . 9  □
  ───────────
    4 .□  7
```

3.
```
   □ . 8  9
  - 1 . 9  □
  ───────────
    0 .□  2
```

4.
```
    2 . 9
  + □ . 9
  ─────────
   □  1 . 8
```

5.
```
   □ . 8  3
  - 0 .□□
  ───────────
    5 . 0  2
```

6.
```
     1  8 . 6 □
  +  2  1  2 .□
  ───────────────
     2 □  1 . 4  4
```

7.
```
    4 . 6 □
  + 3 .□ 2
  ───────────
   □ . 0  9
```

8.
```
    3 .□ 5
  - 2 . 6 □
  ───────────
   □ . 7  7
```

9.
```
   □ . 8 □
  + 2 .□ 4
  ───────────
    7 . 8  0
```

10.
```
     1  6 . 2 □
  + □  9 .□ 7
  ───────────────
     5 □ . 0  8
```

11.
```
     2  1 . 4 □
  +    □ .□  3
  ───────────────
    □  8 . 3  0
```

12.
```
     8  3 . 6 □
  + □□ .□  1
  ───────────────
     8  7 . 4  2
```

Complete the puzzles.
Every line of numbers in both puzzles should have a sum of 57.95.

13.

```
        ( )   (15.17)   ( )
      ( )        23.6       (28.12)
        (27.5)   ( )   (30.3)
```

14.

```
        ( )    ( )    (42.1)
     (12.9)   4.07     ( )
        ( )  (39.09)  (16.47)
```