Problem 6

Which of the numbers below are multiples of 10? 30, 37, 307, 370, 3700	Which of the numbers below are multiples of 3? 57, 409, 147, 343	What is the difference between 4734 and 2809?

The sum of the 4 digit numbers ABCD and DCBB is a multiple of 10.

The digits A,B,C and D are consecutive integers

The number ABCD is a multiple of 3

Find the difference between the numbers ABCD and DCBB

A B C D

D C B B +

Problem 6

Which of the numbers below are multiples of 10? 30, 37, 307, 370, 3700 30, 370, 3700	Which of the numbers below are multiples of 3? 57, 409, 147, 343 57, 147	What is the difference between 4734 and 2809? 1925

The sum of the 4 digit numbers ABCD and DCBB is a multiple of 10.

The digits A,B,C and D are consecutive integers

The number ABCD is a multiple of 3

Find the difference between the numbers ABCD and DCBB

```
  A  B  C  D
  D  C  B  B  +
 ____________

 ____________
```

D + B is 10

ABCD
3456

6544 - 3456
= 3088

PROBLEM 6A

Find value of E and F.

Each letter represents a unique single digit number.

The only prime numbers are A,B,C and D

B,G, E and F are all even numbers.

D and G are multiples of 3.

$$\begin{array}{cccc} A & B & C & D \\ G & E & F & B \\ \hline H & B & H & H & A \end{array} +$$

PROBLEM 6A

Find difference between the 4-digit numbers
ABCD and GEFB

Each letter represents a unique single digit number.

The only prime numbers are A,B,C and D
B,G, E and F are all even numbers.
D and G are multiples of 3.

$$\begin{array}{cccc} A & B & C & D \\ G & E & F & B \\ \hline H & B & H & H & A \end{array} +$$

$$\begin{array}{cccc} 5 & 2 & 7 & 3 \\ 6 & 8 & 4 & 2 \\ \hline 1 & 2 & 1 & 1 & 5 \end{array} +$$

6842 − 5273 = 1569

PROBLEM 6B

Find difference between the 4-digit numbers
ABCD and EEFC

Each letter represents a unique single digit number.

The sum of the two 4-digit numbers ABCD and EEFC is a multiple of 10

B,C,D and E are all prime numbers.
D is greater than C.

A and B are consecutive numbers and A + B + C + D =19

$$\begin{array}{cccc} A & B & C & D \\ E & E & F & C \\ \hline G & D & B & H \end{array} +$$

PROBLEM 6B

Find difference between the 4-digit numbers
ABCD and EEFC

Each letter represents a unique single digit number.

The sum of the two 4-digit numbers ABCD and EEFC is a multiple of 10

B,C,D and E are all prime numbers.
D is greater than C.

A and B are consecutive numbers and A + B + C + D =19

$$\begin{array}{cccc} A & B & C & D \\ E & E & F & C \; + \\ \hline G & D & B & H \end{array}$$

$$\begin{array}{cccc} 4 & 5 & 3 & 7 \\ 2 & 2 & 1 & 3 \; + \\ \hline 6 & 7 & 5 & 0 \end{array}$$

4537 - 2213 = 2324

PROBLEM 6C

Find difference between the 4-digit numbers
ABCD and BEFA

Each letter represents a unique single digit number.

ABCD is a multiple of 10

A,B and C are multiples of 3

B,E,F and A are consecutive integers

$$\begin{array}{r} A\ B\ C\ D \\ B\ E\ F\ A\ + \\ \hline C\ G\ E\ A \end{array}$$

PROBLEM 6C

Find difference between the 4-digit numbers ABCD and BEFA

Each letter represents a unique single digit number.

ABCD is a multiple of 10

A,B and C are multiples of 3

B,E,F and A are consecutive integers

$$\begin{array}{r} A\ B\ C\ D \\ B\ E\ F\ A\ + \\ \hline C\ G\ E\ A \end{array}$$

$$\begin{array}{r} 6\ 3\ 9\ 0 \\ 3\ 4\ 5\ 6\ + \\ \hline 9\ 8\ 4\ 6 \end{array}$$

6390 − 3456 = 2934

PROBLEM 6D

Find difference between the 4-digit numbers
ABCD and CEFG

ABCD is a multiple of 10
CEFG is a multiple of 5

A,B and C are square numbers
E,F and G are prime numbers

$$\begin{array}{r} A\ B\ C\ D \\ C\ E\ F\ G\ + \\ \hline C\ D\ H\ E\ G \end{array}$$

PROBLEM 6D

Find difference between the 4-digit numbers
ABCD and CEFG

ABCD is a multiple of 10
CEFG is a multiple of 5

A,B and C are square numbers
E,F and G are prime numbers

9410 – 1325 = 8085

$$\begin{array}{r} A\ B\ C\ D \\ C\ E\ F\ G\ + \\ \hline C\ D\ H\ E\ G \end{array}$$

$$\begin{array}{r} 9\ 4\ 1\ 0 \\ 1\ 3\ 2\ 5\ + \\ \hline 1\ 0\ 7\ 3\ 5 \end{array}$$

PROBLEM 6A

Find value of E and F.

Each letter represents a unique single digit number.

The only prime numbers are A,B,C and D
B,G, E and F are all even numbers.
D and G are multiples of 3.

$$\begin{array}{r} A\ B\ C\ D \\ G\ E\ F\ B\ + \\ \hline H\ B\ H\ H\ A \end{array}$$

PROBLEM 6B

Find difference between the 4-digit numbers
ABCD and EEFC

Each letter represents a unique single digit number.

The sum of the two 4-digit numbers ABCD and EEFC
is a multiple of 10

B,C,D and E are all prime numbers.
D is greater than C.

A and B are consecutive numbers and A + B + C + D =19

$$\begin{array}{r} A\ B\ C\ D \\ E\ E\ F\ C\ + \\ \hline G\ D\ B\ H \end{array}$$

PROBLEM 6C

Find difference between the 4-digit numbers
ABCD and BEFA

Each letter represents a unique single digit number.

ABCD is a multiple of 10

A,B and C are multiples of 3

B,E,F and A are consecutive integers

$$\begin{array}{r} A\ B\ C\ D \\ B\ E\ F\ A\ + \\ \hline C\ G\ E\ A \end{array}$$

PROBLEM 6D

Find difference between the 4-digit numbers
ABCD and CEFG

ABCD is a multiple of 10
CEFG is a multiple of 5

A,B and C are square numbers
E,F and G are prime numbers

$$\begin{array}{r} A\ B\ C\ D \\ C\ E\ F\ G\ + \\ \hline C\ D\ H\ E\ G \end{array}$$

PROBLEM 6A

Find difference between the 4-digit numbers ABCD and GEFB

Each letter represents a unique single digit number.

The only prime numbers are A,B,C and D
B,G, E and F are all even numbers.
D and G are multiples of 3.

```
  A B C D
  G E F B +
-----------
  H B H H A
```

```
  5 2 7 3
  6 8 4 2 +
-----------
  1 2 1 1 5
```

6842 – 5273 = 1569

PROBLEM 6B

Find difference between the 4-digit numbers ABCD and EEFC

Each letter represents a unique single digit number.

The sum of the two 4-digit numbers ABCD and EEFC is a multiple of 10

B,C,D and E are all prime numbers.
D is greater than C.

A and B are consecutive numbers and A + B + C + D =19

```
  A B C D
  E E F C +
-----------
  G D B H
```

```
  4 5 3 7
  2 2 1 3 +
-----------
  6 7 5 0
```

4537 - 2213 = 2324

PROBLEM 6C

Find difference between the 4-digit numbers ABCD and BEFA

Each letter represents a unique single digit number.

ABCD is a multiple of 10

A,B and C are multiples of 3

B,E,F and A are consecutive integers

```
  A B C D
  B E F A +
-----------
  C G E A
```

```
  6 3 9 0
  3 4 5 6 +
-----------
  9 8 4 6
```

6390 – 3456 = 2934

PROBLEM 6D

Find difference between the 4-digit numbers ABCD and CEFG

ABCD is a multiple of 10
CEFG is a multiple of 5

A,B and C are square numbers
E,F and G are prime numbers

```
  A B C D
  C E F G +
-----------
  C D H E G
```

```
  9 4 1 0
  1 3 2 5 +
-----------
  1 0 7 3 5
```

9410 – 1325 = 8085