# Mental Warmer

| + | - |
|---|---|
| plus | take away |
| add | difference |
| total | less |
| sum of | minus |
| | subtract |

**Do these as fast as you can on your whiteboard:**

1) 7 take away 3
2) Take 30 from 70.
3) 14 subtract 2.
4) Subtract 30 from 70.
5) 3 less than 7.
6) What is the difference between 10 and 18?

7) Subtract 40 from 95.
8) 100 less than 437.
9) What must I take from 14 to leave 6?
10) What is the difference between 22 and 5?
11) 20 taken from a number is 35. What is the number?

# To use a table in subtracting.

```
 T U          T U
 1 8         78 13
-↓6         -5 7
─────       ─────
 1 2         2 6
```

Write these sums in a table (with T and U), then answer the questions.

1) 14 - 2
2) 28 - 3
3) 19 - 7
4) 36 - 6
5) 55 - 2
6) 80 - 5
7) 68 - 4
8) 99 - 8

1) 28 - 12
2) 56 - 14
3) 79 - 15
4) 85 - 22
5) 87 - 24
6) 66 - 35
7) 58 - 18
8) 172 - 31
9) 284 - 142

1) 78 - 34
2) 86 - 42
3) 147 - 34
4) 295 - 143
5) 240 - 29
6) 63 - 45
7) 76 - 59
8) 548 - 79
9) 5432 - 4543
10) 9000 - 4376

When we use a table, it is important to set up our numbers correctly. Which one of these is correct? Why?

|   | H | T | U |
|---|---|---|---|
|   | 8 | 1 | 7 |
| - |   | 4 | 5 |

|   | H | T | U |
|---|---|---|---|
|   | 8 | 1 | 7 |
| - |   | 4 | 5 |

In subtraction, it is also important to put the <u>biggest number first</u>.

# When taking away, big numbers can be difficult. Look at this way of solving: 87 - 55

## Step 1

Write the numbers in a table.

$$
\begin{array}{cc}
T & U \\
8 & 7 \\
- 5 & 5 \\
\hline
\end{array}
$$

## Step 2

Partition the numbers

$$
\begin{array}{r}
80 + 7 \\
- 50 + 5 \\
\hline
\end{array}
$$

## Step 3

Then do the take away then add the numbers.
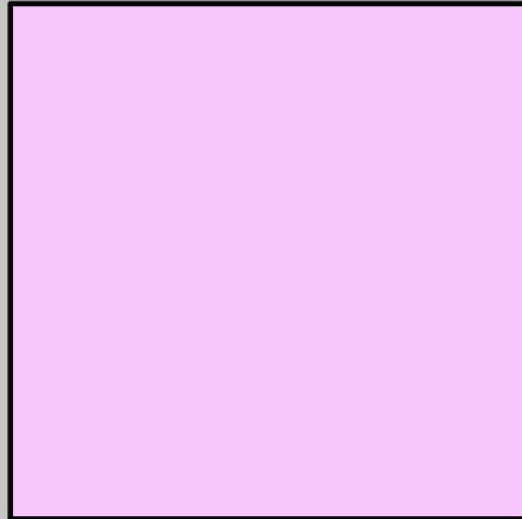
$$
\begin{array}{r}
80 + 7 \\
- 50 + 5 \\
\hline
30 + 2 = 32 \\
\end{array}
$$

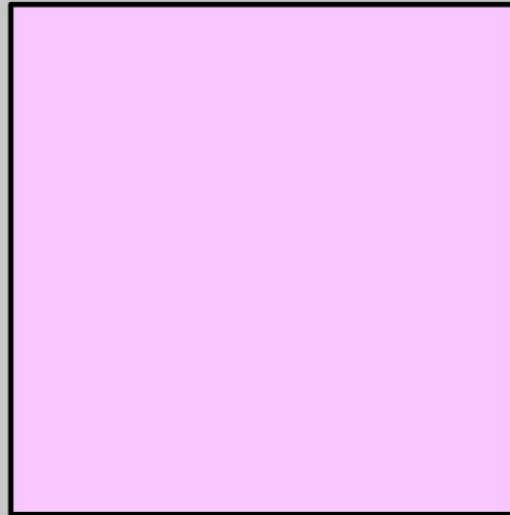Lets do one together.  78 - 36

Try each step on your whiteboard, then check the whiteboard to see if you are right.

Step 1: Write the numbers in a table.
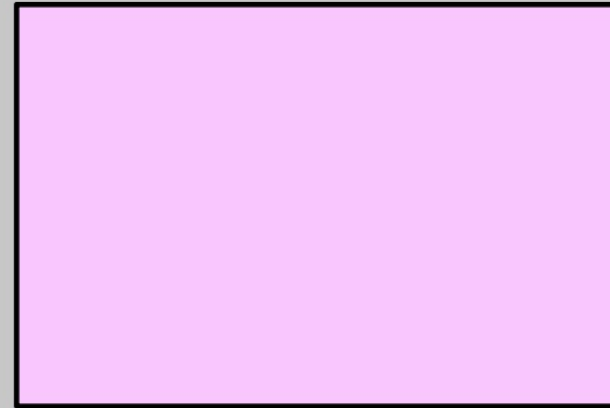
## Step 2: Partition the numbers

```
  T  U
  7  8
- 3  6
_____
```

# Step 3: Do the take away, then add the answer

```
  T  U
  7  8        70 + 8
- 3  6      - 30 + 6
_____    _____
```

Too complicated???
There is an easier way!
But it is important to understand that the tens and units can be partitioned.

Look at this:   93 - 47

```
  T  U
  9  3
- 4  7
_____
```

There is a problem here, as we cannot easily take 7 from 3.

We would have to borrow a ten from the tens colomn so we could do it. don't worry about that for the moment.

# The Easier Way

Look: 68 - 32

```
  T  U
  6  8
- 3  2
_____
```

**Step 1:** Make the Table

**Step 2:** Take away the units, write the answer in the units colomn.

**Step 3:** Do the same for the tens.

Try these on your whiteboard:

1) 86 - 44          2) 77 - 37          3) 185 - 72

One more thing!!!

Look: 18 - 6

```
   T  U
   1  8
-     6
```

We can do 8 - 6. But we must also bring down the 1 (which is a 10)

Think thats easy?

Look at this: 83 - 57

```
  T  U
  8  3
- 5  7
_____
```

This time I will have to take a ten so I can do 3 - 7. Because I have taken a ten, it will now be 13 -7.

```
  T  U
 78  13
- 5  7
_____
  16
```

Now I can finish the sum.

Example:

T U

7̶ 8̶ 3
- 5 7
————
1 6

Try these on your whiteboard:

1) 45 - 26
2) 63 - 37
3) 106 - 79

HARD!
(hint: you can't
take from 0,
so you will
have take from
the 100!)