

SWIFT LEARNING BOOK—1

(Part VI)

Tips and tricks for Calculating

SWIFT Topic: Numbers & Technology (Calculating numbers)

Art by: Fleur Celeste

MULTIPLICATION SHORTCUTS

TO MULTIPLY ANY NUMBER BY 10:

Place a zero at the end of the number.
(For example: 476 times 10 is: 4,760)

TO MULTIPLY ANY NUMBER BY 5:

Place a zero at the end of the number (the same as multiplying it by ten),
Then divide the number by 2 (what is half of the number).

For example, 28 times 5 would be done like this:

$28 \times 10 = 280$;

Divide it by 2

(mentally work out that half of 200 is 100, and half of 80 is 40)

So the answer is 140. (100 + 40)



Or it can be done the other way around too:

First divide 28 in half (half of 20 is 10, and half of 8 is 4) making it 14 (10 + 4), then place a zero at the end, (multiplying by 10). The answer is the same, 140.

If a number doesn't divide evenly, and ends with a .5 (or half a number), then you move over the decimal, which is the same as multiplying by ten.

For example:

37 times 5 is 185

Mentally you work out: half of 30 is 15,
and half of 7 is $3\frac{1}{2}$ or 3.5

Then add: $15 + 3.5$ is 18.5

Lastly, move the decimal over and make it 185 (same as multiplying by 10).



TO MULTIPLY ANY NUMBER BY 50:

Place two zeros at the end of the number; and divide it by 2.

—Or the other way around: First divide by 2, then multiply by 100 by placing two zeros (or move over the decimal and place on one more zero)

For example: 40 times 50 is 2,000

You place 00 and make the 40 a 4,000, then divide by 2, so it is 2,000.

Or another example, doing it the other way around:

95 times 50 is: 4,750

Mentally you work out that half of 90 is 45; and half of 5 is $2\frac{1}{2}$ or 2.5.

Then add: $45 \text{ plus } 2.5 = 47.5$

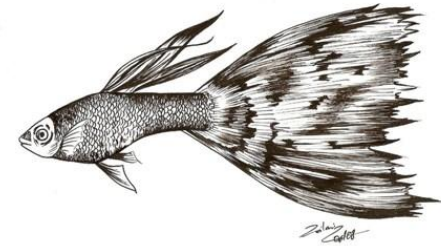
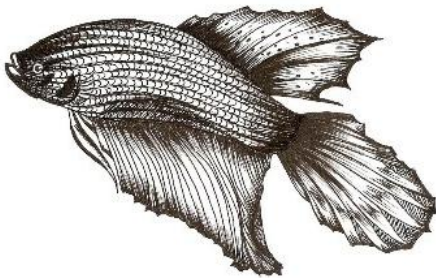
Then move the decimal over, making it 475,
and place on one more zero: 4,750



TO MULTIPLY ANY NUMBER BY 100:

Place two zeros at the end of the number.

(For example: 97 times 100 is: 9,700)



TO MULTIPLY ANY NUMBER BY 1000:

Place three zeros at the end of the number.

(For example 168 times 1000 is: 168,000)