

The Round-to-Even Rule

Also called ...

Gaussian Rounding
Banker's Rounding

Why use it???



Karl Friedrich Gauss

1777 - 1855, Germany

Famous for his work in
both mathematics
and physics.

*When using many numbers, for example, in banking or statistics, totals will be slightly higher than they should be.

*For a large set of data, this rounding rule averages out the error and makes the data more valid.

Why??? Because even and odd occur half the time each, thus,

It all comes out in the wash!



Round these numbers the old way and add:

$$\begin{array}{ccccccccc} 3.5 & 2.5 & 7.5 & 8.5 & 4.5 & & & & \\ = & 4 & + & 3 & + & 8 & + & 9 & + & 5 & = & 29 \end{array}$$

Using the round-to-even rule:

$$= 4 + 2 + 8 + 8 + 4 = 26$$

The real answer is ... 26.5 ... the round-to-even rule works!!