

Simple Moving Averages:

$$\frac{\sum_{n=0}^4 C_n}{5} = \frac{1}{5} C_0 + \frac{1}{5} C_1 + \frac{1}{5} C_2 + \frac{1}{5} C_3 + \frac{1}{5} C_4$$

$$\frac{\sum_{n=0}^{19} C_n}{20} = \frac{1}{20} C_0 + \frac{1}{20} C_1 + \frac{1}{20} C_2 + \frac{1}{20} C_3 + \frac{1}{20} C_4 + \dots + \frac{1}{20} C_{19}$$

if $\frac{\sum_{n=0}^4 C_n}{5} = \frac{\sum_{n=0}^{19} C_n}{20}$ where C_0 is unknown, then

$$\frac{C_0 + \sum_{n=1}^4 C_n}{5} = \frac{C_0 + \sum_{n=1}^{19} C_n}{20}$$

$$\frac{4(C_0 + \sum_{n=1}^4 C_n)}{20} = \frac{C_0 + \sum_{n=1}^{19} C_n}{20}$$

$$4(C_0 + \sum_{n=1}^4 C_n) = C_0 + \sum_{n=1}^{19} C_n$$

$$3C_0 = \sum_{n=1}^{19} C_n - 4 \sum_{n=1}^4 C_n$$

$$C_0 = \frac{\sum_{n=1}^{19} C_n - 4 \sum_{n=1}^4 C_n}{3}$$

in MetaStock terms:

(Ref(Sum(CLOSE,19),-1)-4*Ref(Sum(CLOSE,4),-1))/3;

or more simply:

(Ref(Sum(CLOSE,19),-1)-4*Sum(CLOSE,4),-1))/3;