```mathematica
thilo = "d:\\Users\\Johannes\\Desktop\\diplom\\mat_backup\\nucleon3pt.790.m0.200.a0";
pos = "d:\\Users\\Johannes\\Projekte\\Diplom\\results_backup_cluster\\pos.pol.24\\
   nucleon3pt.790.m0.200.a0";

neg = "d:\\Users\\Johannes\\Projekte\\Diplom\\results_backup_cluster\\neg.pol.10\\
    nucleon3pt.790.m0.200.a0";
avg =
  "d:\\Users\\Johannes\\Projekte\\Diplom\\results_backup_cluster\\average\\a0\\200"
  ;

c3 = (#[[2]] + I #[[3]]) & /@ Import[pos, "Table"]; c2 = (#[[2]] + I #[[3]]) & /@ Import[
   "d:\\Users\\Johannes\\Projekte\\Diplom\\results_backup_cluster\\pos.pol.24\\200"
   , "Table"];
c2n = (#[[2]] + I #[[3]]) & /@ Import[
    "d:\\Users\\Johannes\\Projekte\\Diplom\\results_backup_cluster\\neg.pol.10\\200
     ", "Table"];
tc3 = (#[[2]] + I #[[3]]) & /@ Import[thilo, "Table"];

mc2 = Table[{Mean[Re[Log[#]]], StandardDeviation[Re[Log[#]]]} &[
    Table[c2[[j + i * 32]], {i, 0, 99}]], {j, 2, 32}];
ten = Table[Table[c2n[[j + i * 32]], {i, 0, 99}], {j, 1, 32}];
te = Table[Table[c2[[j + i * 32]], {i, 0, 99}], {j, 1, 32}];
mc2n = Table[{Re[Mean[#]], Re[StandardDeviation[#]], j} &[
    Table[c2n[[j + i * 32]], {i, 0, 99}]], {j, 32, 1, -1}];
mc3 = Table[Sum[c3[[j + i * 32]], {i, 0, 99}], {j, 32}];
mtc3 = Table[Sum[tc3[[j + i * 32]], {i, 0, 99}], {j, 32}];

Mean[Re[-te[[24]]]]
StandardDeviation[Re[-te[[24]]]] / Mean[Re[-te[[24]]]]
ListPlot[Re[-te[[24]]]]
```
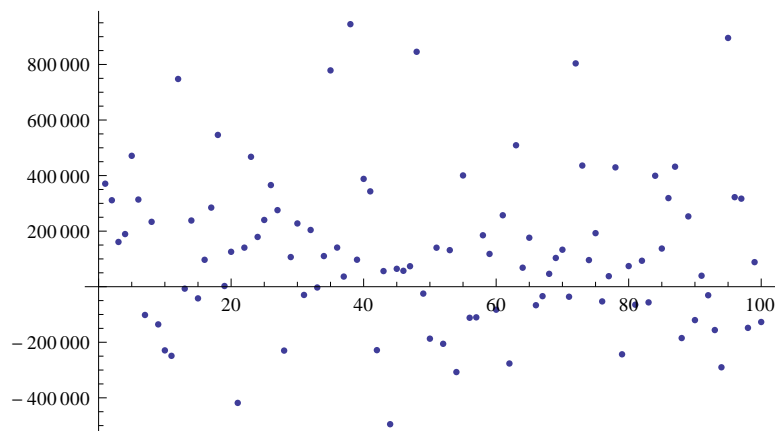
127 877.

2.18532
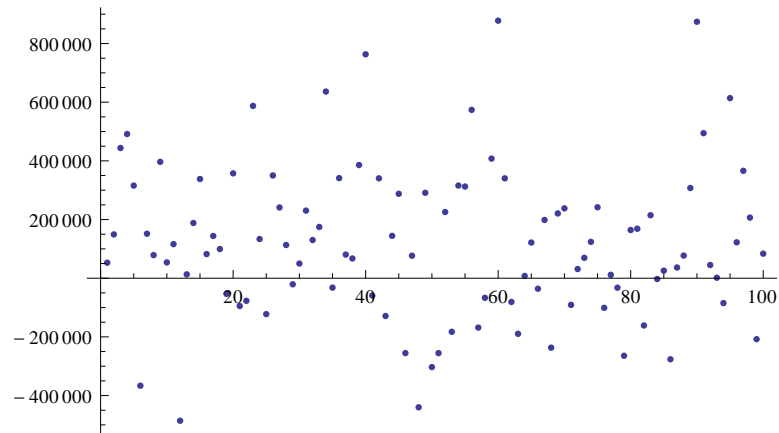
```
Mean[Re[ten[[10]]]]
StandardDeviation[Re[ten[[10]]]] / Mean[Re[ten[[10]]]]
ListPlot[Re[ten[[10]]]]
```
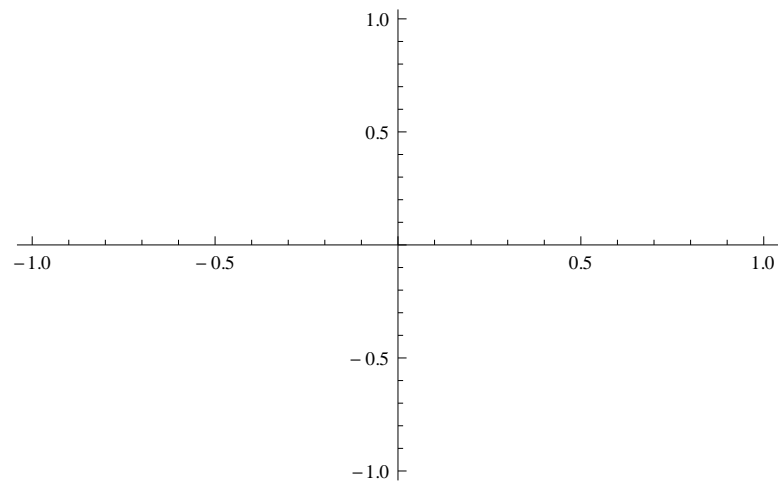
121 434.

2.15014


```
mc2n[[1]]
```

$-1.0805 \times 10^{15} - 1.91479 \times 10^{11}$ $\mathbb{i}$

```
Needs["ErrorBarPlots`"]
```

```
ErrorListPlot[{{1, ErrorBar[{1, 2}]}}, AxesOrigin → {0, 0}]
```

mc2n

$\{\{2.00638 \times 10^{12}, 3.26645 \times 10^{11}, 32\}, \{4.27819 \times 10^{11}, 8.61311 \times 10^{10}, 31\},$
$\{9.79242 \times 10^{10}, 2.3766 \times 10^{10}, 30\}, \{2.27944 \times 10^{10}, 6.7365 \times 10^{9}, 29\},$
$\{5.34008 \times 10^{9}, 1.8437 \times 10^{9}, 28\}, \{1.27618 \times 10^{9}, 5.23601 \times 10^{8}, 27\},$
$\{3.07989 \times 10^{8}, 1.45842 \times 10^{8}, 26\}, \{7.45437 \times 10^{7}, 3.90315 \times 10^{7}, 25\},$
$\{1.77805 \times 10^{7}, 1.01022 \times 10^{7}, 24\}, \{4.24884 \times 10^{6}, 2.67017 \times 10^{6}, 23\},$
$\{1.00317 \times 10^{6}, 693\,449., 22\}, \{235\,530., 174\,839., 21\},$
$\{55\,494.1, 44\,888.1, 20\}, \{12\,894.4, 11\,867.3, 19\}, \{2947.1, 3281.86, 18\},$
$\{668.202, 989.69, 17\}, \{141.466, 700.902, 16\}, \{1.46911, 1112.8, 15\},$
$\{-94.5661, 2332.57, 14\}, \{-188.539, 7289.72, 13\}, \{531.458, 26\,678.7, 12\},$
$\{12\,594., 93\,939.2, 11\}, \{121\,434., 350\,461., 10\}, \{851\,365., 1.37881 \times 10^{6}, 9\},$
$\{4.88989 \times 10^{6}, 5.84092 \times 10^{6}, 8\}, \{2.82246 \times 10^{7}, 2.51239 \times 10^{7}, 7\},$
$\{1.69104 \times 10^{8}, 1.09398 \times 10^{8}, 6\}, \{9.93808 \times 10^{8}, 4.99572 \times 10^{8}, 5\},$
$\{5.72738 \times 10^{9}, 2.32142 \times 10^{9}, 4\}, \{5.01073 \times 10^{10}, 1.44545 \times 10^{10}, 3\},$
$\{4.24581 \times 10^{11}, 8.5518 \times 10^{10}, 2\}, \{-1.0805 \times 10^{13}, 1.46724 \times 10^{12}, 1\}\}$

```
a = {{#[[3]], Log[#[[1]]]},
    ErrorBar[{Log[1 + #[[2]] / #[[1]]], Log[1 - #[[2]] / #[[1]]]}]} & /@ mc2n
```

{{{32, 28.3274}, ErrorBar[{0.150833, -0.177696}]},
 {{31, 26.782}, ErrorBar[{0.183426, -0.224802}]},
 {{30, 25.3075}, ErrorBar[{0.217285, -0.277994}]},
 {{29, 23.8498}, ErrorBar[{0.258923, -0.350314}]},
 {{28, 22.3985}, ErrorBar[{0.296585, -0.423513}]},
 {{27, 20.9671}, ErrorBar[{0.343793, -0.528119}]},
 {{26, 19.5456}, ErrorBar[{0.387662, -0.641563}]},
 {{25, 18.1269}, ErrorBar[{0.42108, -0.74151}]},
 {{24, 16.6936}, ErrorBar[{0.449903, -0.839702}]},
 {{23, 15.2622}, ErrorBar[{0.487626, -0.990061}]},
 {{22, 13.8187}, ErrorBar[{0.525472, -1.17524}]},
 {{21, 12.3696}, ErrorBar[{0.555219, -1.35605}]},
 {{20, 10.924}, ErrorBar[{0.592709, -1.65486}]},
 {{19, 9.46455}, ErrorBar[{0.652505, -2.53005}]},
 {{18, 7.98858}, ErrorBar[{0.748387, -2.17517 + 3.14159 i}]},
 {{17, 6.50459}, ErrorBar[{0.908711, -0.731631 + 3.14159 i}]},
 {{16, 4.95206}, ErrorBar[{1.78416, 1.37487 + 3.14159 i}]},
 {{15, 0.384658}, ErrorBar[{6.6313, 6.62866 + 3.14159 i}]},
 {{14, 4.5493 + 3.14159 i}, ErrorBar[{3.16404 + 3.14159 i, 3.24517}]},
 {{13, 5.23931 + 3.14159 i}, ErrorBar[{3.62871 + 3.14159 i, 3.68045}]},
 {{12, 6.27562}, ErrorBar[{3.93572, 3.89588 + 3.14159 i}]},
 {{11, 9.44097}, ErrorBar[{2.13524, 1.86549 + 3.14159 i}]},
 {{10, 11.7071}, ErrorBar[{1.35739, 0.634471 + 3.14159 i}]},
 {{9, 13.6546}, ErrorBar[{0.962994, -0.478796 + 3.14159 i}]},
 {{8, 15.4027}, ErrorBar[{0.785949, -1.63738 + 3.14159 i}]},
 {{7, 17.1557}, ErrorBar[{0.636651, -2.20855}]},
 {{6, 18.946}, ErrorBar[{0.498909, -1.04107}]},
 {{5, 20.7171}, ErrorBar[{0.407253, -0.698531}]},
 {{4, 22.4685}, ErrorBar[{0.340265, -0.519732}]},
 {{3, 24.6374}, ErrorBar[{0.253456, -0.34034}]},
 {{2, 26.7744}, ErrorBar[{0.183502, -0.224917}]},
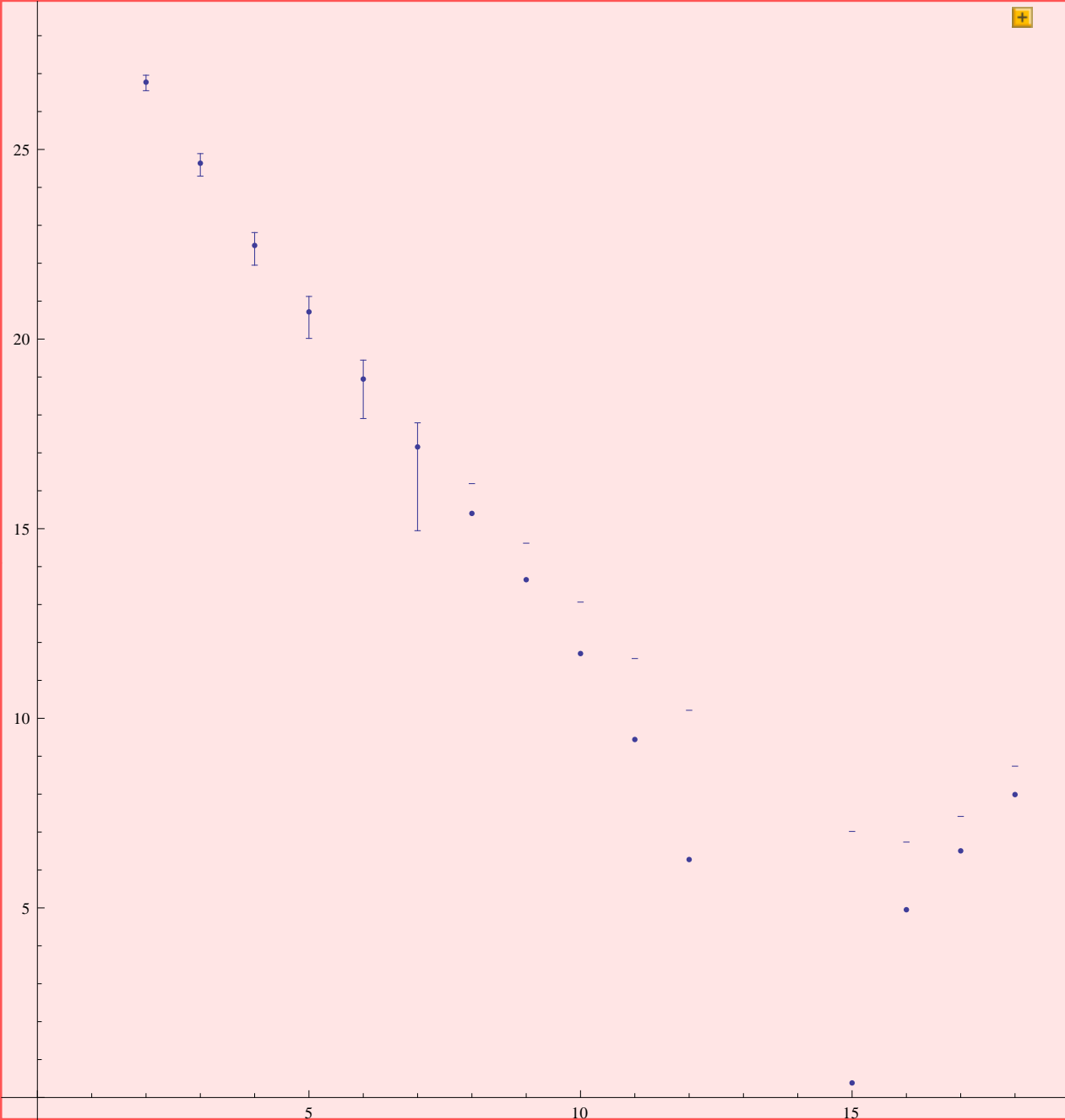 {{1, 30.011 + 3.14159 i}, ErrorBar[{-0.145943, 0.127331}]}}}

```
Pi // N
```

3.14159

```
a[[14]]
```

{{19, 9.46455}, ErrorBar[{2.53005, -0.652505}]}
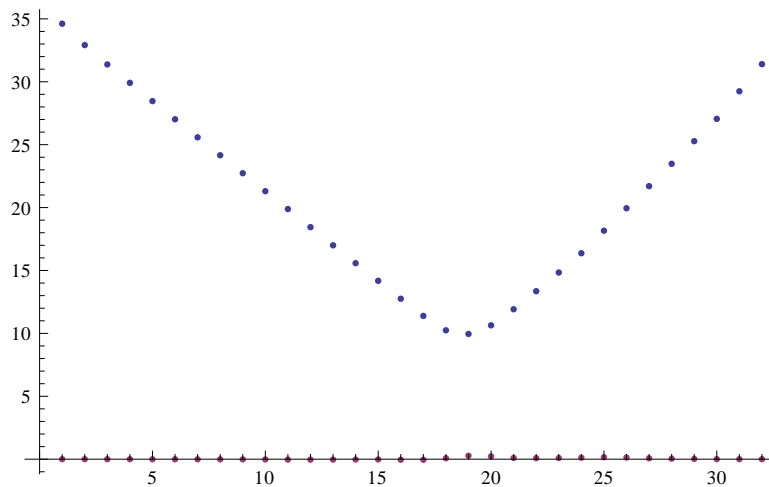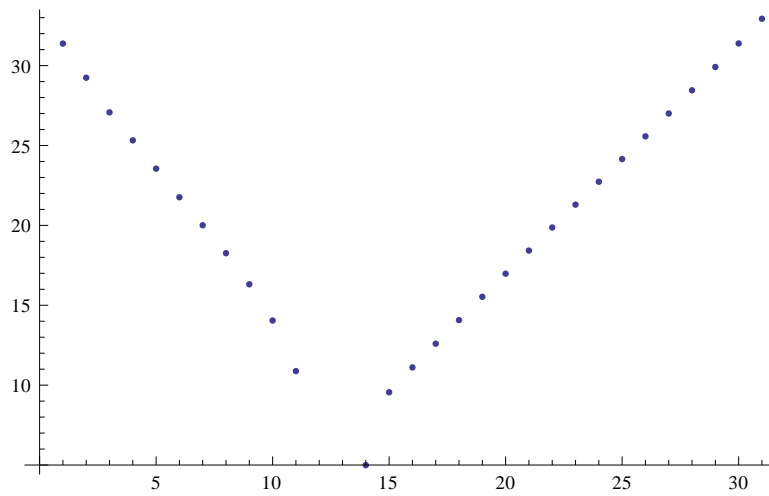
ErrorListPlot[a]

mc2n[[1]]

$-1.08043 \times 10^{15} - 3.43494 \times 10^{11} \, i$

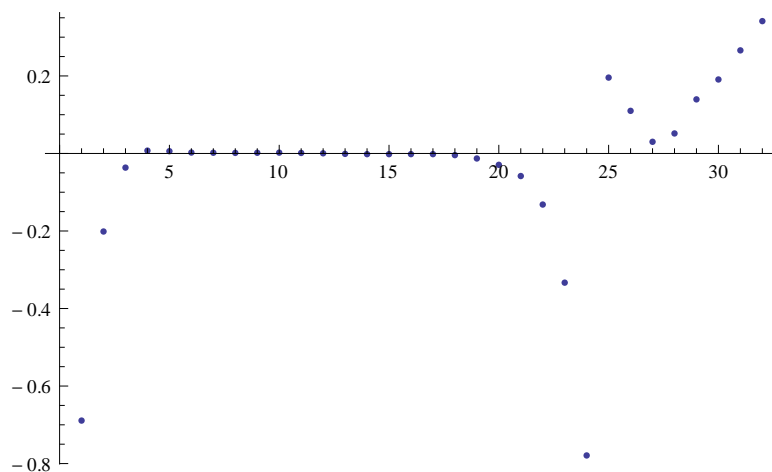`ListPlot[{Re[Log[-mc2]], Im[Log[-mc2]]}]`

`ListPlot[{Log[Re[te]]}]`

`mc2[[24]]`

$-1.27877 \times 10^7 - 1.51982 \times 10^6 \, i$

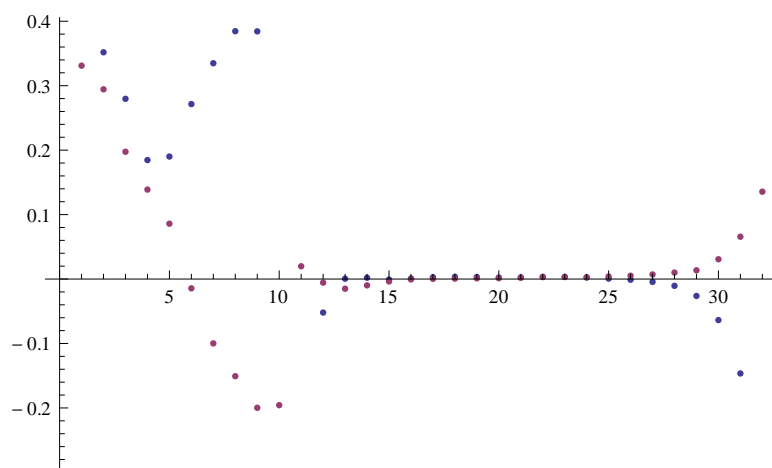`mc2n[[23]]`

$1.21434 \times 10^7 + 305\,622. \, i$
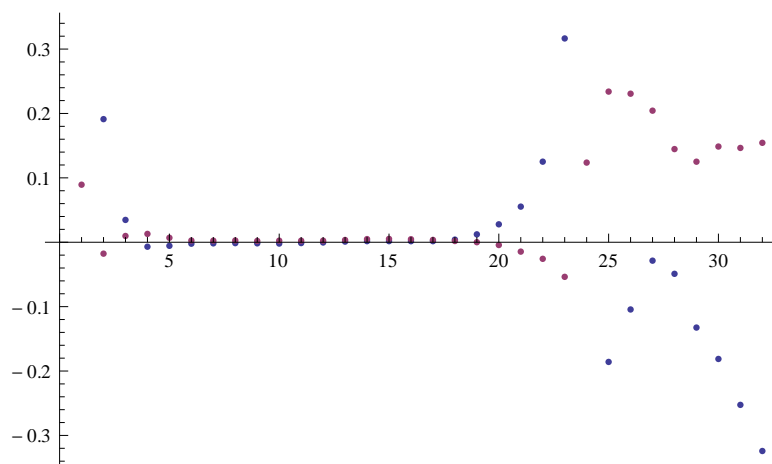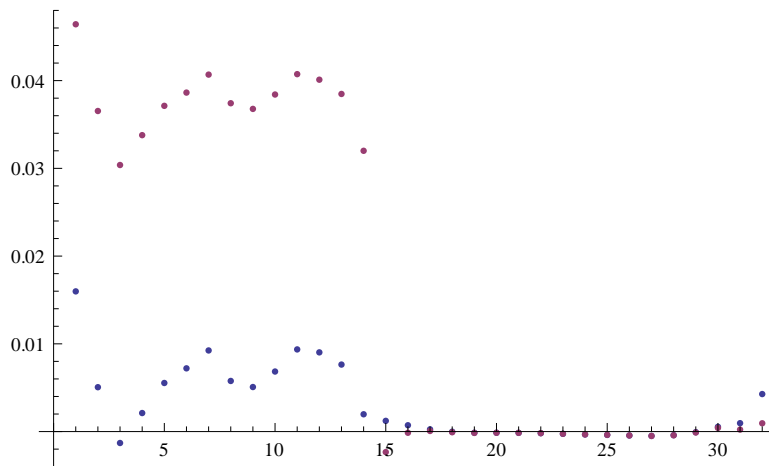
ListPlot[{Im[mc3] / Re[mc2n[[23]]]}, PlotRange → Full]

ListPlot[{Im[mc3] / Re[mc2[[24]]], Re[mc3] / Re[mc2[[24]]]}]

ListPlot[{Im[mc3] / Re[mc2[[24]]], Re[mc3] / Re[mc2[[24]]]}]

`ListPlot[{Re[mtc3 / mc2[[14]]], Re[mtc3] / Re[mc2[[14]]]}]`

`{{1, 2, 3}} / {{10, 100, 1000}}`

$$\{\{\frac{1}{10}, \frac{1}{50}, \frac{3}{1000}\}\}$$

`Log[-4]`

$\mathbb{i}\ \pi + \text{Log}[4]$

`Sin[#] & /@ {1, 2, 3}`

$\{\text{Sin}[1], \text{Sin}[2], \text{Sin}[3]\}$