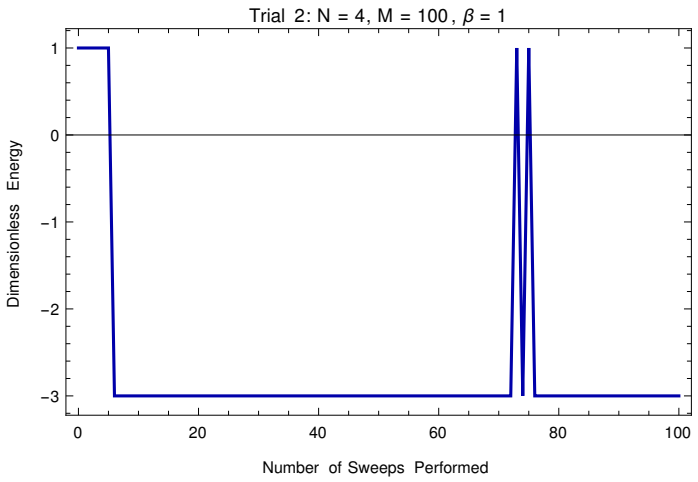
Trial 2: N = 4, M = 100, β = 1, J = +1, J_seed = 3, MC_seed = 6, Spins_seed = 2

In[174]:=
```
trial2 = Flatten[Import["ising_output2 .csv", "CSV"]];
trial2data = Transpose[{numSweeps , trial2}];
trial2plot = ListLinePlot[trial2data , Frame → True ,
  FrameLabel → {"Number  of  Sweeps  Performed ", "Dimensionless  Energy "},
  PlotLabel → "Trial  2: N = 4,  M = 100,  β = 1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

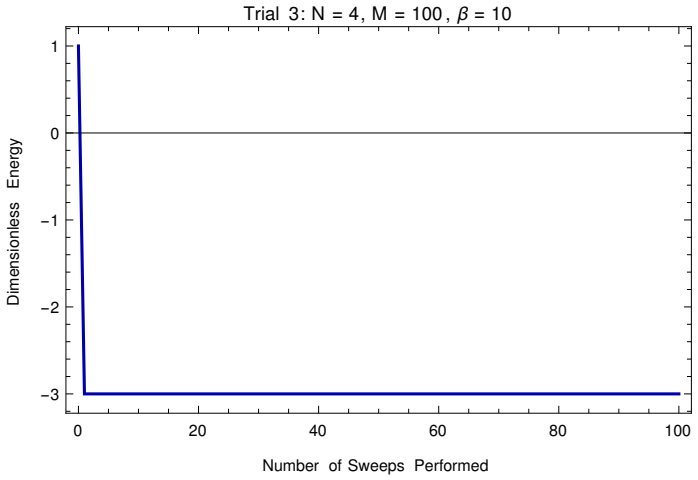
Out[176]=



Trial 3: N = 4, M = 100, β = 10, J = +1, J_seed = 3, MC_seed = 7, Spins_seed = 3

In[177]:=
```
trial3 = Flatten[Import["ising_output3 .csv", "CSV"]];
trial3data = Transpose[{numSweeps , trial3}];
trial3plot = ListLinePlot[trial3data , Frame → True ,
  FrameLabel → {"Number  of  Sweeps  Performed ", "Dimensionless  Energy "},
  PlotLabel → "Trial  3:  N  =  4,  M  =  100,  β  =  10",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

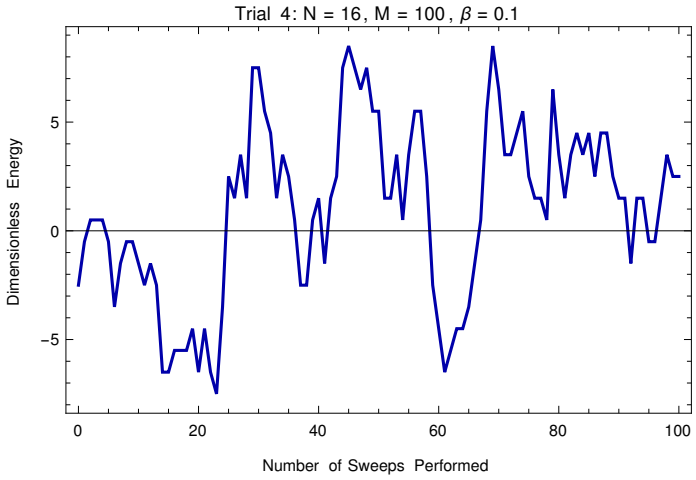
Out[179]=



Trial 4: N = 16, M = 100, β = 0.1, J = +1, J_seed = 4, MC_seed = 8, Spins_seed = 4

In[180]:=
```
trial4 = Flatten[Import["ising_output4 .csv", "CSV"]];
trial4data = Transpose[{numSweeps , trial4}];
trial4plot = ListLinePlot[trial4data , Frame → True ,
  FrameLabel → {"Number  of  Sweeps  Performed ", "Dimensionless  Energy"},
  PlotLabel → "Trial  4:  N  =  16,  M  =  100,  β  =  0.1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

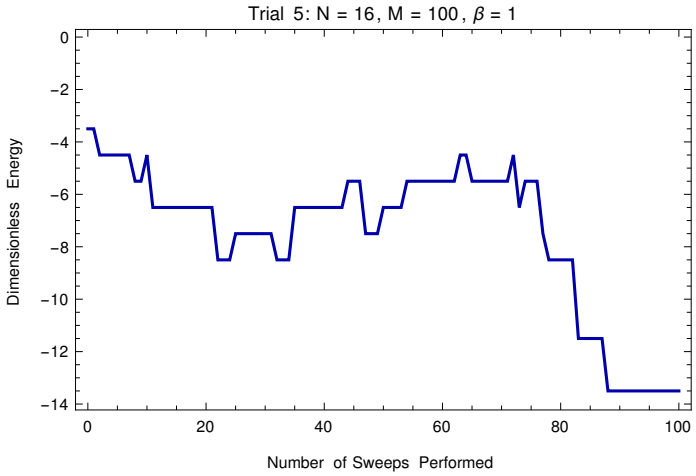
Out[182]=



Trial 5: N = 16, M = 100, β = 1, J = +1, J_seed = 4, MC_seed = 9, Spins_seed = 5

In[183]:=
```
trial5 = Flatten[Import["ising_output5 .csv", "CSV"]];
trial5data = Transpose[{numSweeps , trial5}];
trial5plot = ListLinePlot[trial5data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 5: N = 16, M = 100, β = 1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

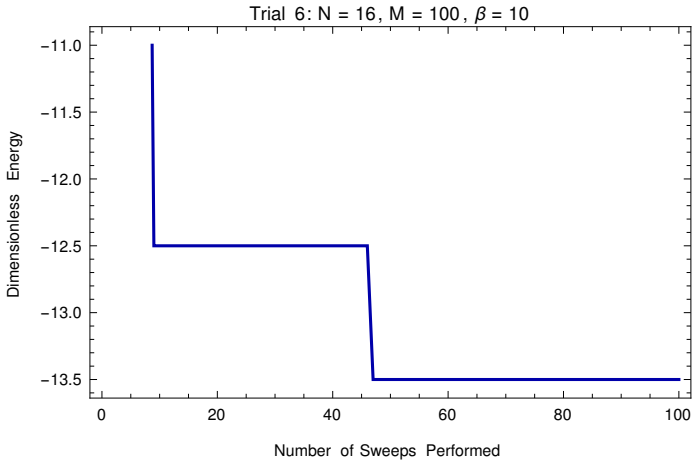
Out[185]=



Trial 6: N = 16, M = 100, β = 10, J = +1, J_seed = 4, MC_seed = 10, Spins_seed = 6

In[186]:=
```
trial6 = Flatten[Import["ising_output6.csv", "CSV"]];
trial6data = Transpose[{numSweeps, trial6}];
trial6plot = ListLinePlot[trial6data, Frame → True,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 6: N = 16, M = 100, β = 10",
  PlotStyle → Darker[Blue], FrameStyle → Black, LabelStyle → Black]
```

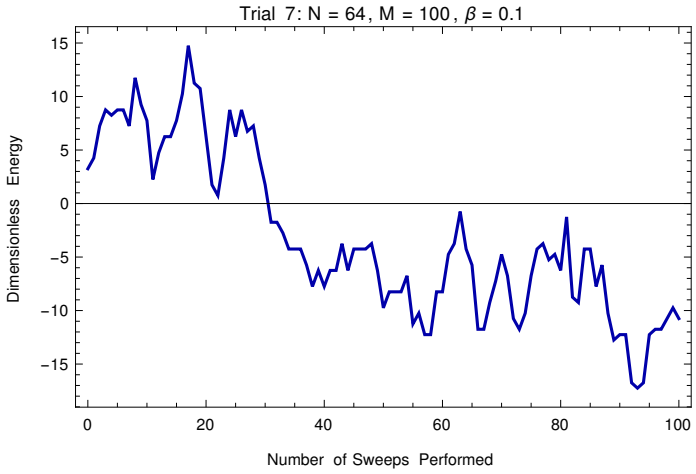
Out[188]=



Trial 7: N = 64, M = 100, β = 0.1, J = +1, J_seed = 5, MC_seed = 11, Spins_seed = 7

In[189]:=
```
trial7 = Flatten[Import["ising_output7 .csv", "CSV"]];
trial7data = Transpose[{numSweeps , trial7}];
trial7plot = ListLinePlot[trial7data , Frame → True ,
  FrameLabel → {"Number  of  Sweeps  Performed", "Dimensionless  Energy"},
  PlotLabel → "Trial  7: N = 64, M = 100, β = 0.1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

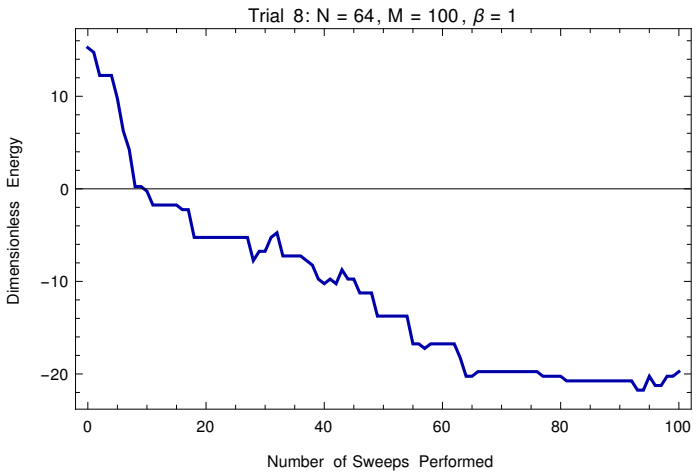
Out[191]=



Trial 8: N = 64, M = 100, β = 1, J = +1, J_seed = 5, MC_seed = 12, Spins_seed = 8

In[192]:=
```
trial8 = Flatten[Import["ising_output8 .csv", "CSV"]];
trial8data = Transpose[{numSweeps , trial8}];
trial8plot = ListLinePlot[trial8data , Frame → True ,
  FrameLabel → {"Number  of  Sweeps  Performed ", "Dimensionless  Energy "},
  PlotLabel → "Trial  8: N = 64, M = 100, β = 1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

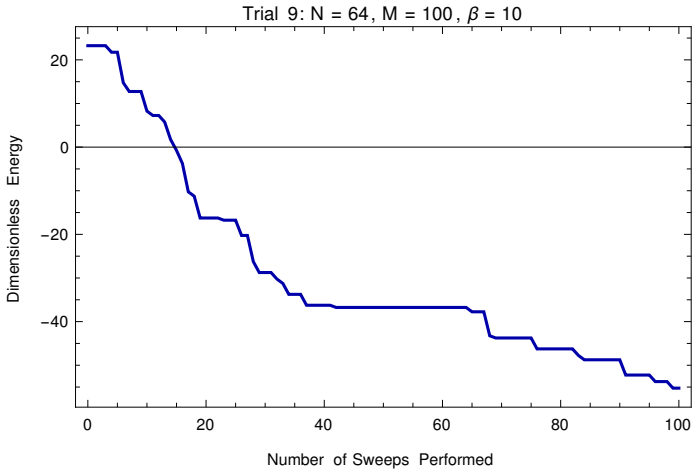
Out[194]=



Trial 9: N = 64, M = 100, β = 10, J = +1, J_seed = 5, MC_seed = 13, Spins_seed = 9

In[195]:=
```
trial9 = Flatten[Import["ising_output9 .csv", "CSV"]];
trial9data = Transpose[{numSweeps , trial9}];
trial9plot = ListLinePlot[trial9data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 9: N = 64, M = 100, β = 10",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

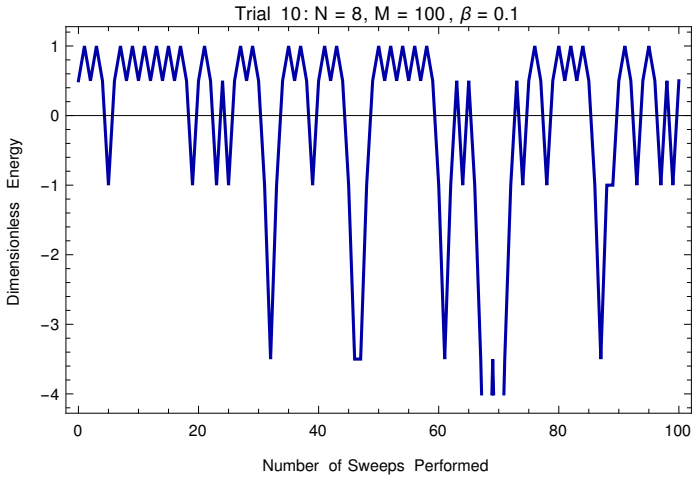
Out[197]=



Trial 10: N = 8, M = 100, β = 0.1, J = +/-1, J_seed = 6, MC_seed = 14, Spins_seed = 10

In[198]:=
```
trial10 = Flatten[Import["ising_output10 .csv", "CSV"]];
trial10data = Transpose[{numSweeps , trial10}];
trial10plot = ListLinePlot[trial10data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 10: N = 8, M = 100, β = 0.1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

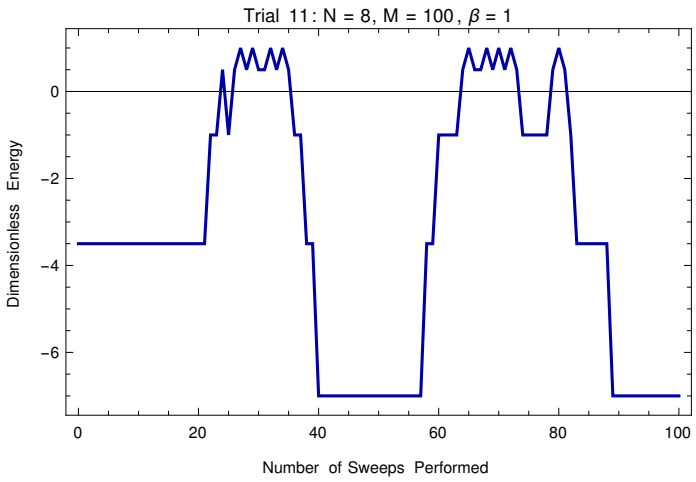
Out[200]=



Trial 11: N = 8, M = 100, β = 1, J = +/-1, J_seed = 6, MC_seed = 15, Spins_seed = 11

In[201]:=
```
trial11 = Flatten[Import["ising_output11 .csv", "CSV"]];
trial11data = Transpose[{numSweeps , trial11}];
trial11plot = ListLinePlot[trial11data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 11: N = 8, M = 100, β = 1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

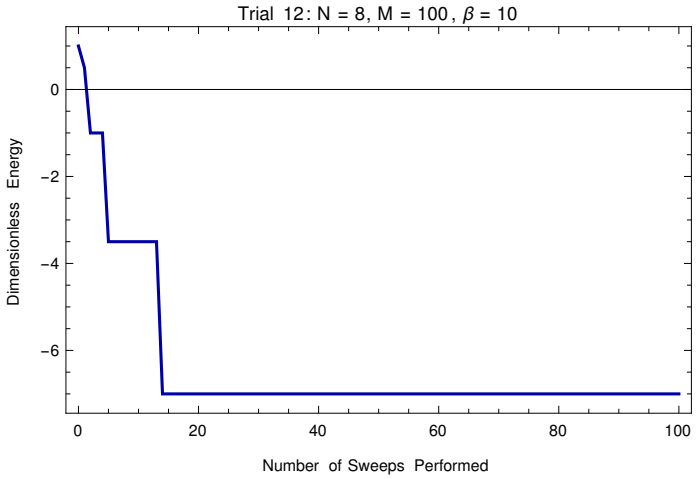
Out[203]=



Trial 12: N = 8, M = 100, β = 10, J = +/-1, J_seed = 6, MC_seed = 16, Spins_seed = 12

In[204]:=
```
trial12 = Flatten[Import["ising_output12 .csv", "CSV"]];
trial12data = Transpose[{numSweeps , trial12}];
trial12plot = ListLinePlot[trial12data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 12: N = 8, M = 100, β = 10",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

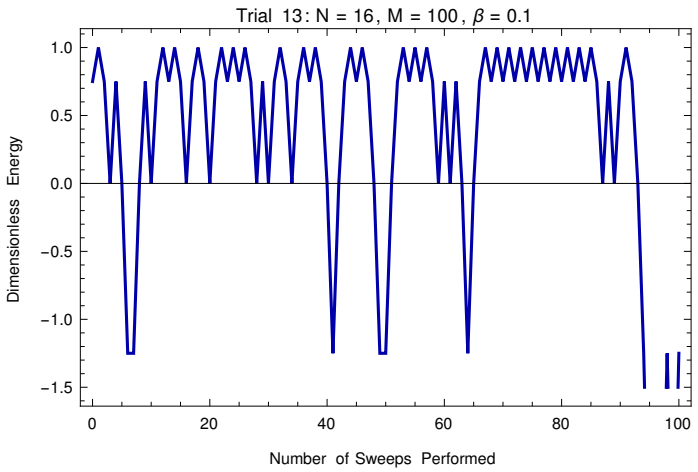
Out[206]=



Trial 13: N = 16, M = 100, β = 0.1, J = +/-1, J_seed = 7, MC_seed = 17, Spins_seed = 13

In[207]:=
```
trial13 = Flatten[Import["ising_output13 .csv", "CSV"]];
trial13data = Transpose[{numSweeps , trial13}];
trial13plot = ListLinePlot[trial13data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 13: N = 16, M = 100, β = 0.1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

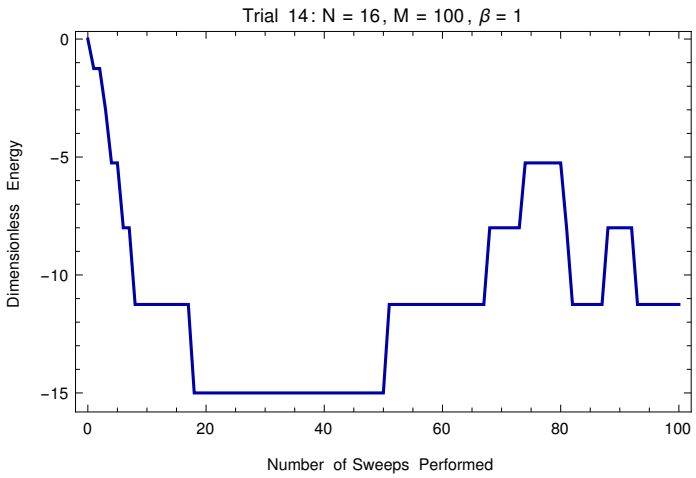
Out[209]=



Trial 14: N = 16, M = 100, β = 1, J = +/-1, J_seed = 7, MC_seed = 18, Spins_seed = 14

In[210]:=
```
trial14 = Flatten[Import["ising_output14 .csv", "CSV"]];
trial14data = Transpose[{numSweeps , trial14}];
trial14plot = ListLinePlot[trial14data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 14: N = 16, M = 100, β = 1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

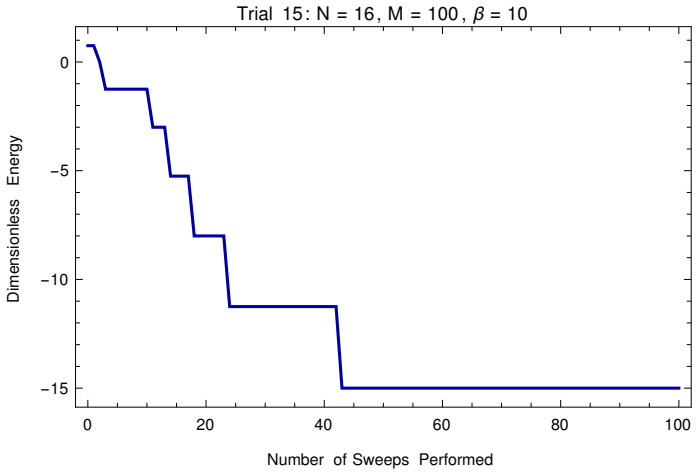
Out[212]=



Trial 15: N = 16, M = 100, β = 10, J = +/-1, J_seed = 7, MC_seed = 1, Spins_seed = 15

In[213]:=
```
trial15 = Flatten[Import["ising_output15 .csv", "CSV"]];
trial15data = Transpose[{numSweeps , trial15}];
trial15plot = ListLinePlot[trial15data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 15: N = 16, M = 100, β = 10",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

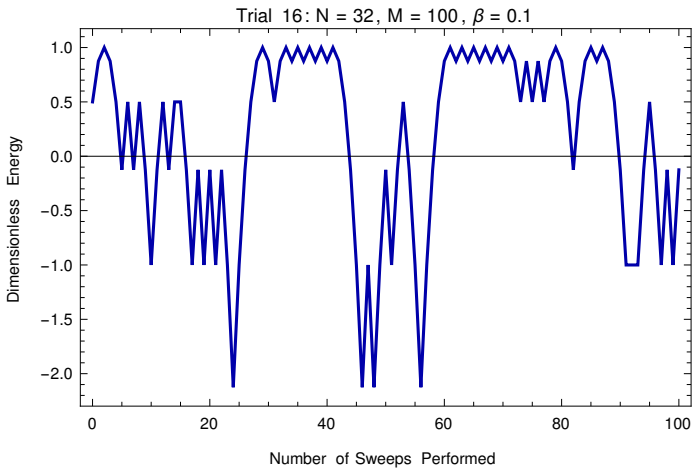
Out[215]=



Trial 16: N = 32, M = 100, β = 0.1, J = +/-1, J_seed = 8, MC_seed = 20, Spins_seed = 16

In[216]:=
```
trial16 = Flatten[Import["ising_output16 .csv", "CSV"]];
trial16data = Transpose[{numSweeps , trial16}];
trial16plot = ListLinePlot[trial16data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 16: N = 32, M = 100, β = 0.1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

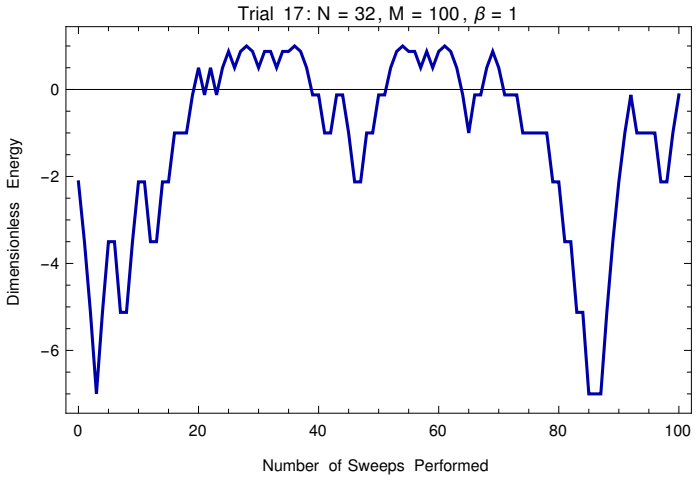
Out[218]=



Trial 17: N = 32, M = 100, β = 1, J = +/-1, J_seed = 8, MC_seed = 21, Spins_seed = 17

In[219]:=
```
trial17 = Flatten[Import["ising_output17 .csv", "CSV"]];
trial17data = Transpose[{numSweeps , trial17}];
trial17plot = ListLinePlot[trial17data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 17: N = 32, M = 100, β = 1",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

Out[221]=



Trial 18: N = 32, M = 100, β = 10, J = +/-1, J_seed = 8, MC_seed = 22, Spins_seed = 17

In[222]:=
```
trial18 = Flatten[Import["ising_output18 .csv", "CSV"]];
trial18data = Transpose[{numSweeps , trial18}];
trial18plot = ListLinePlot[trial18data , Frame → True ,
  FrameLabel → {"Number of Sweeps Performed", "Dimensionless Energy"},
  PlotLabel → "Trial 18: N = 32, M = 100, β = 10",
  PlotStyle → Darker[Blue], FrameStyle → Black , LabelStyle → Black]
```

Out[224]=