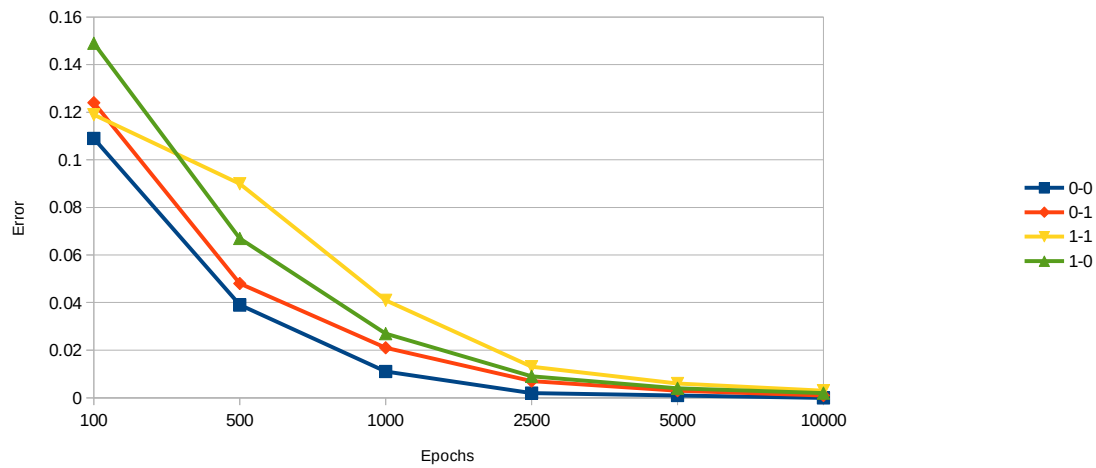


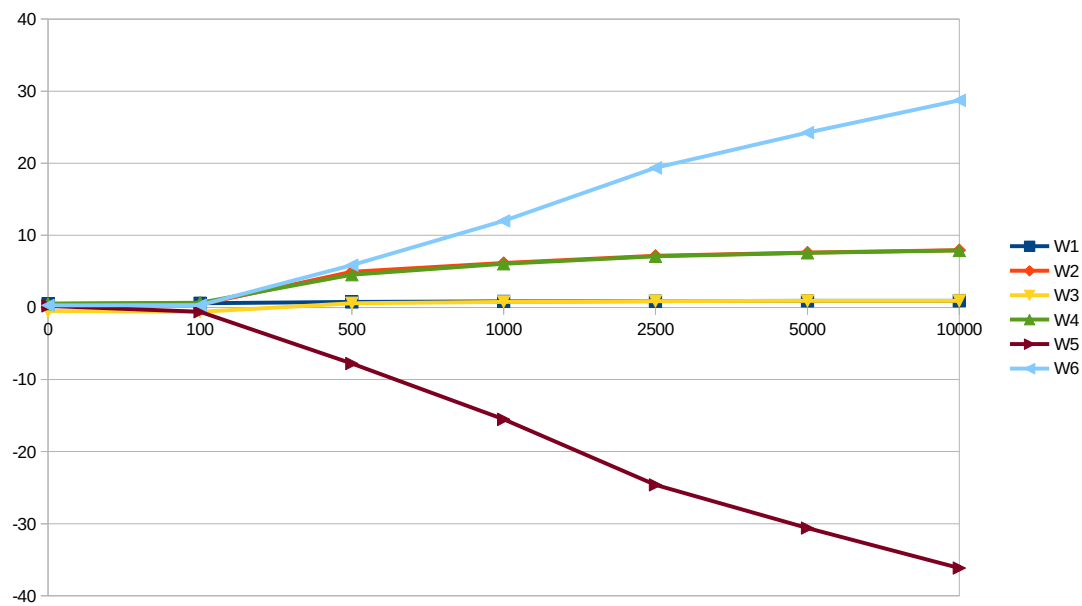
xor

| EPOCHS | 100 | 500 | 1000 | 2500 | 5000 | 10000 |
|--------|-------|-------|-------|-------|-------|-------|
| 0-0 | 0.109 | 0.039 | 0.011 | 0.002 | 0.001 | 0 |
| 0-1 | 0.124 | 0.048 | 0.021 | 0.007 | 0.003 | 0.001 |
| 1-1 | 0.119 | 0.09 | 0.041 | 0.013 | 0.006 | 0.003 |
| 1-0 | 0.149 | 0.067 | 0.027 | 0.009 | 0.004 | 0.002 |

XOR



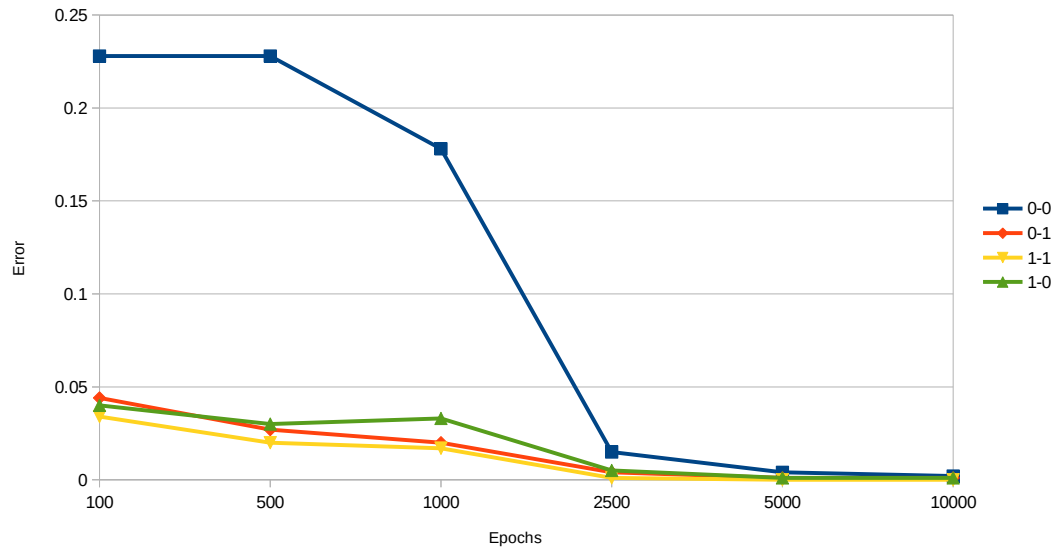
| Epochs | Weights | | | | | |
|--------|---------|-------|--------|-------|---------|--------|
| | W1 | W2 | W3 | W4 | W5 | W6 |
| 0 | 0.5 | 0.3 | -0.5 | 0.5 | 0.2 | 0.3 |
| 100 | 0.586 | 0.395 | -0.602 | 0.651 | -0.596 | 0.335 |
| 500 | 0.755 | 4.953 | 0.599 | 4.526 | -7.797 | 5.889 |
| 1000 | 0.829 | 6.178 | 0.781 | 6.047 | -15.532 | 12.025 |
| 2500 | 0.891 | 7.163 | 0.867 | 7.105 | -24.597 | 19.352 |
| 5000 | 0.918 | 7.598 | 0.899 | 7.558 | -30.614 | 24.238 |
| 10000 | 0.935 | 7.935 | 0.92 | 7.905 | -36.151 | 28.739 |



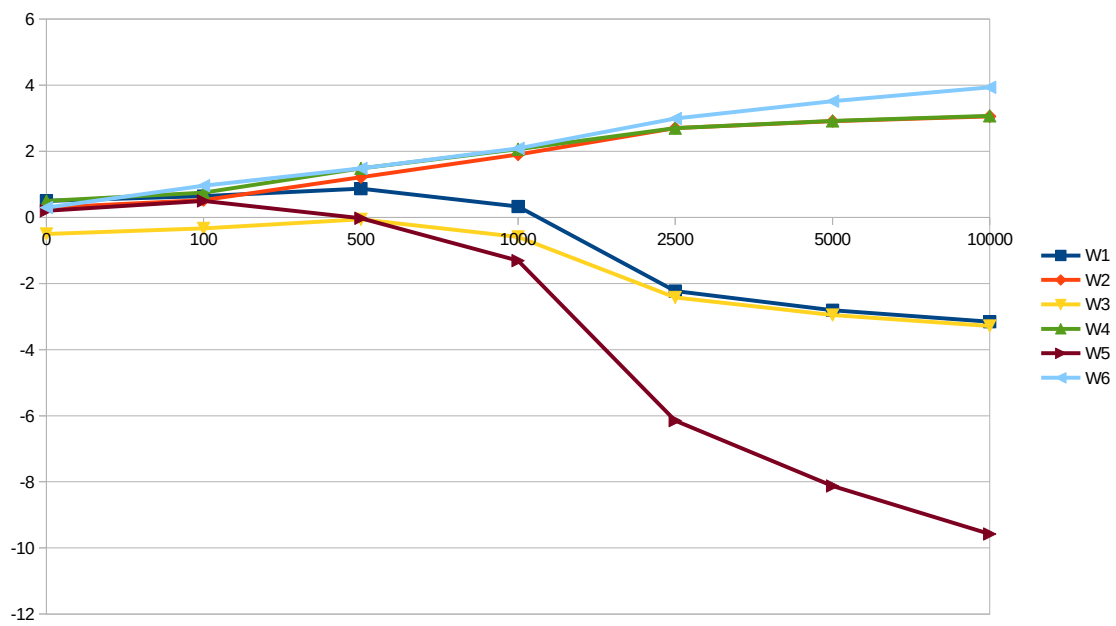
or

| OR | | | | | | |
|--------|-------|-------|-------|-------|-------|-------|
| EPOCHS | 100 | 500 | 1000 | 2500 | 5000 | 10000 |
| 0-0 | 0.228 | 0.228 | 0.178 | 0.015 | 0.004 | 0.002 |
| 0-1 | 0.044 | 0.027 | 0.02 | 0.004 | 0.001 | 0.001 |
| 1-1 | 0.034 | 0.02 | 0.017 | 0.001 | 0 | 0 |
| 1-0 | 0.04 | 0.03 | 0.033 | 0.005 | 0.001 | 0.001 |

OR

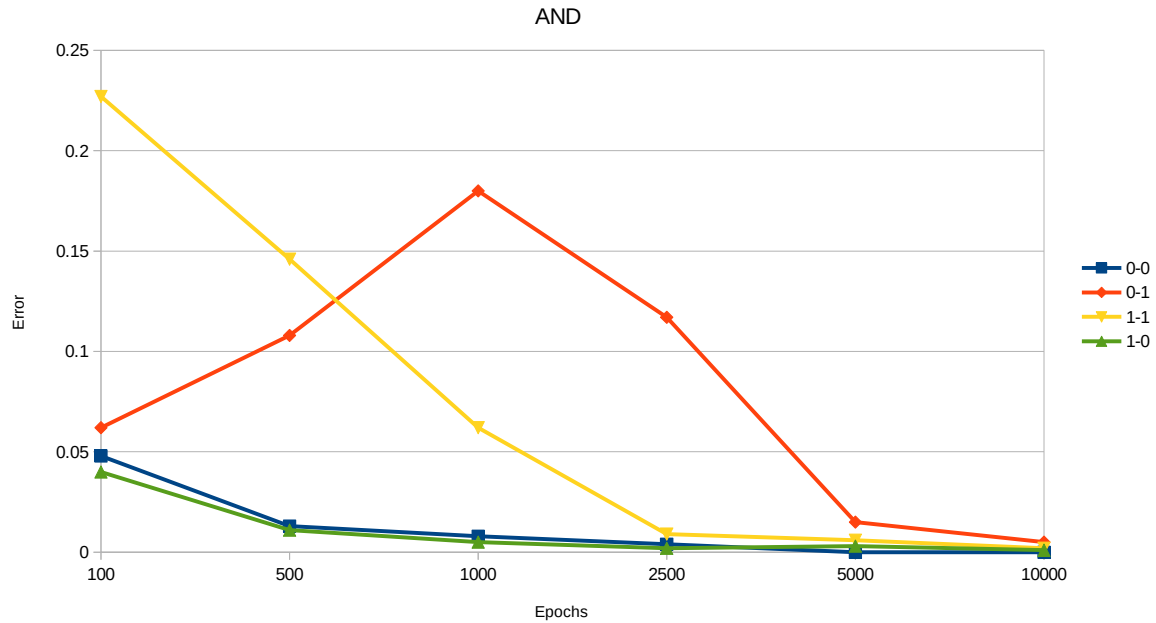


| Epochs | Weights | | | | | |
|--------|---------|-------|--------|-------|--------|-------|
| | W1 | W2 | W3 | W4 | W5 | W6 |
| 0 | 0.5 | 0.3 | -0.5 | 0.5 | 0.2 | 0.3 |
| 100 | 0.643 | 0.52 | -0.334 | 0.747 | 0.499 | 0.964 |
| 500 | 0.871 | 1.217 | -0.055 | 1.482 | -0.026 | 1.484 |
| 1000 | 0.328 | 1.905 | -0.585 | 2.066 | -1.306 | 2.09 |
| 2500 | -2.224 | 2.701 | -2.417 | 2.701 | -6.148 | 2.991 |
| 5000 | -2.811 | 2.911 | -2.956 | 2.921 | -8.124 | 3.515 |
| 10000 | -3.152 | 3.055 | -3.284 | 3.076 | -9.574 | 3.938 |



and

| AND | | | | | | |
|--------|-------|-------|-------|-------|-------|-------|
| Epochs | 100 | 500 | 1000 | 2500 | 5000 | 10000 |
| 0-0 | 0.048 | 0.013 | 0.008 | 0.004 | 0 | 0 |
| 0-1 | 0.062 | 0.108 | 0.18 | 0.117 | 0.015 | 0.005 |
| 1-1 | 0.227 | 0.146 | 0.062 | 0.009 | 0.006 | 0.002 |
| 1-0 | 0.04 | 0.011 | 0.005 | 0.002 | 0.003 | 0.001 |



| Weights | | | | | | |
|---------|-------|-------|--------|--------|---------|--------|
| Epochs | W1 | W2 | W3 | W4 | W5 | W6 |
| 0 | 0.5 | 0.3 | -0.5 | 0.5 | 0.2 | 0.3 |
| 100 | 0.364 | 0.257 | -0.89 | 0.338 | -1.119 | -0.482 |
| 500 | 0.095 | -0.13 | -2.909 | -0.144 | -3.417 | 0.08 |
| 1000 | 0.478 | 1.167 | -3.817 | -0.032 | -4.929 | 1.036 |
| 2500 | 1.059 | 4.654 | -3.573 | -2.96 | -7.555 | 2.85 |
| 5000 | 0.498 | 6.857 | -1.782 | -3.429 | -11.873 | 4.815 |
| 10000 | 0.483 | 7.805 | -1.697 | -3.858 | -15.197 | 6.281 |

