

```

pauli1 = 880, 1<, 81, 0<<

```

```

880, 1<, 81, 0<<

```

```

pauli2 = 880, 1<, 8- 1, 0<<

```

```

880, ä<, 8- ä, 0<<

```

```

pauli3 = 881, 0<, 80, - 1<<

```

```

881, 0<, 80, - 1<<

```

```

asigma1 = ax pauli1 + ay pauli2 + az pauli3

```

```

88az, ax + ä ay<, 8ax - ä ay, - az<<

```

```

asigma2 = bx pauli1 + by pauli2 + bz pauli3

```

```

88bz, bx + ä by<, 8bx - ä by, - bz<<

```

```

bellexpect = Expand@1 • 2 H81, 0< . asigma1.881<, 80<< 80, 1< . asigma2.880<, 81<< +
  81, 0< . asigma2.881<, 80<< 80, 1< . asigma1.880<, 81<< -
  80, 1< . asigma1.881<, 80<< 81, 0< . asigma2.880<, 81<< -
  81, 0< . asigma1.880<, 81<< 80, 1< . asigma2.881<, 80<< LD

```

```

8- ax bx - ay by - az bz<

```