Designing a Generic Graph Library using ML Functors

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Goal

- SystemC has a top level loop which simulates events.
- A loss of accuracy on the top level loop of a simulation yields immediately a bad result.

Put graphic in here!

cea

```
int main(int i) {
  int j=0;
  j=2*i;
  if (2*i==j) {
    return 314;
  }
  return 2;
}
```
Represention of the return value:

Put graphic in here!

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Property

First assert in `checkTwoDigitAdder` *is always true.*

Proof.

According to data hypergraph, formula to prove is:

$$(a + b)\&1 = 0\,\mathrm{xor}((a\&1)\,\mathrm{xor}(b\&1))$$

which becomes:

$$(a_1 + a_2 << 1 + b_1 + b_2 << 1)\&1 = (a\&1)\,\mathrm{xor}(b\&1)$$

$$(a_1 + b_1)\&1 = a_1\,\mathrm{xor}\,b_1$$

$\square$