

**Step 1**

$$\underbrace{\text{reduce}(+,0) \circ \text{map}(\text{abs})}_{4e}$$

**Step 2**

$$\text{reduce}(+,0) \circ \text{outerJoin}^n \circ \text{map}(\text{part-red}(+,0)) \circ \text{outerSplit}^n \circ \underbrace{\text{map}(\text{abs})}_{4d}$$

**Step 3**

$$\text{reduce}(+,0) \circ \text{outerJoin}^n \circ \text{map}(\text{part-red}(+,0)) \circ \underbrace{\text{outerSplit}^n \circ \text{outerJoin}^n \circ \text{map}(\text{map}(\text{abs}))}_{4g} \circ \text{outerSplit}^n$$

**Step 4**

$$\text{reduce}(+,0) \circ \text{outerJoin}^n \circ \underbrace{\text{map}(\text{part-red}(+,0)) \circ \text{map}(\text{map}(\text{abs}))}_{4h} \circ \text{outerSplit}^n$$

**Step 5**

$$\text{reduce}(+,0) \circ \text{outerJoin}^n \circ \underbrace{\text{map}(\text{part-red}(+,0) \circ \text{map}(\text{abs}))}_{4e\&5b} \circ \underbrace{\text{outerSplit}^n}_{5a}$$

**Step 6**

$$\text{reduce}(+,0) \circ \text{outerJoin}^n \circ \underbrace{\text{map}(\text{reduce-seq}(+,0) \circ \text{map-seq}(\text{abs}))}_{4h} \circ \text{outerSplit}^n$$
$$\text{reduce}(+,0) \circ \text{outerJoin}^n \circ \text{map}(\text{reduce-seq}(\lambda \text{ acc}, a: \text{acc} + \text{abs}(a), 0)) \circ \text{outerSplit}^n$$