Quantum Computing: List of Errors

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- Lecture 2 Slide 6 – distributivity condition wrong – final part should be $AC + BC$.

- Lecture 3 slide 17 - P missing subscript m in third equation

- Lecture 5 slide 18 - "one input two outputs" should be "two inputs one output".

- Lecture 6 slide 5 - second last line, should be $1/\sqrt{2}$ not a half.

- Lecture 7 slide 16: $|\psi_3\rangle$ has an extra factor of $1/\sqrt{2}$ which shouldn't be there.

- Lecture 8 slide 9 - braket messed up in second line of $W|\psi\rangle$

- Exercise sheet 2: Q10 (a) subscript should not have +1; also normalisations should be $\frac{1}{\sqrt{2^{n+1}}}$ in part (a).

- Line on slide 4 of lecture 9 should read:

$$|j_2\rangle \to \frac{|0\rangle + e^{\pi i j_2}|1\rangle}{\sqrt{2}} \to \frac{|0\rangle + e^{\pi i j_2}e^{\pi i j_3/2}|1\rangle}{\sqrt{2}}$$

- Line on slide 6 of lecture 9 should read:

$$\frac{1}{\sqrt{N}}\left(|0\rangle + e^{\pi i j_n}|1\rangle\right) \otimes \cdots \otimes \left(|0\rangle + e^{\pi i (j_2 + (j_3/2) + \cdots + (j_n/(2^{n-2})))}|1\rangle\right)$$
$$\otimes \left(|0\rangle + e^{\pi i (j_1 + (j_2/2) + \cdots + (j_n/(2^{n-1})))}|1\rangle\right)$$