



Worst-case delay: Carry from bit 0 to bit 15 = carry generated in bit 0, **propagates** through bits 1, 2, and 3, **skips** the middle two groups (B: group size in bits), **propagates** in the last group from bit 12 to bit 15

$$t_{CBA} = t_{\text{setup}} + B t_{\text{carry}} + ((N/B) - 1) t_{\text{skip}} + (B - 1) t_{\text{carry}} + t_{\text{sum}}$$