Meeting 7

Dennis and Sam

April 3, 2019

1   What we did today

- Revisited $\mathbf{B}M$ and $\bullet \rightrightarrows \bullet$

- Category of globes $\mathbf{G}$ and globular sets $[\mathbf{G}^{\mathrm{op}}, \mathbf{Set}]$

- Category of simplices Δ and simplicial sets $[\Delta^{\mathrm{op}}, \mathbf{Set}]$

- Category of cubes $\square$ and cubical sets $[\square^{\mathrm{op}}, \mathbf{Set}]$

- *Briefly* mentioned Reedy categories and generalized Reedy categories

- (finitary, single-sorted) Lawvere theories and an example using monoids

- *Brief* mention of operads arising this way using the plethyism product on functor categories

- Started idea of realizing general quantities by homming into other objects (covariant $\mathbf{Set}$-valued functors)