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# Visual category Theory

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$\text{Part}_7 \in \mathcal{C}^{\text{Parts}}$

Visual Category Theory Brick by Brick, Part 7: Using LEGO® to Teach Abstract Mathematics

Published by OpenTask, Republic of Ireland

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A CIP catalog record for this book is available from the British Library.

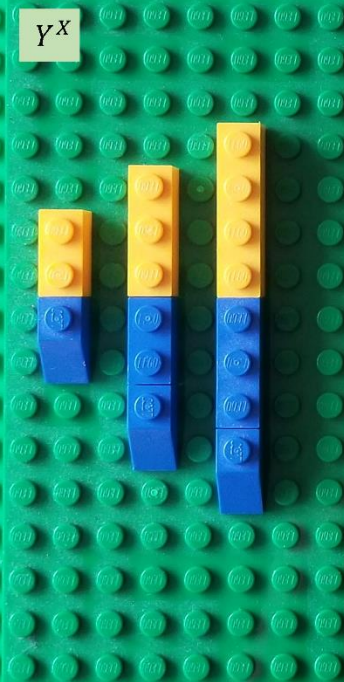
ISBN-13: 978-1912636464 (Paperback)

Revision 1.00 (December 2020)

In *Part<sub>5</sub>* we introduced an exponential of objects  $X, Y \in Ob(\mathcal{C})$ . It can be thought of as representing a collection of arrows between two objects  $X$  and  $Y$ . It is also an object of  $\mathcal{C}$  (internal view) in contrast to a set of arrows  $Hom_{\mathcal{C}}(X, Y) = \{f | f \in Ar(X, Y)\} \in Sets$ , also called hom-set (external view).

$X, Y, Y^X \in Ob(\mathcal{C})$

$Y^X$



In addition to 14 books mentioned in *Part<sub>1</sub>*, *Part<sub>3</sub>* - *Part<sub>6</sub>* we also used:

- Enriched Meanings: Natural Language Semantics with Category Theory by Ash Asudeh and Gianluca Giorgolo
- Categories for the working Mathematician, Second Edition by Saunders Mac Lane