



# Elementary quotient completion

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We extend the notion of exact completion on a weakly lex category to elementary doctrines. We show how any such doctrine admits an elementary quotient completion, which freely adds effective quotients and extensional equality. We note that the elementary quotient completion can be obtained as the composite of two free constructions: one adds effective quotients, and the other forces extensionality of maps. We also prove that each construction preserves comprehensions.

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MSC classes: 03G30, 03B15, 18C50, 03B20, 03F55

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