HW1

September 2020

1. Let $Q = (Q_0, Q_1, h, t)$ be a finite quiver. Let $f : V \to W$ be a representation morphism.

   (a) Prove that f is a monomorphism (categorical definition) if and only if f is a injective morphism between two Q representations.

   (b) Prove that f is a epimorphism (categorical definition) if and only if f is a surjective morphism between two Q representations.

   (c) Prove that f is a isomorphism (categorical definition) if and only if f is a bijective morphism between two Q representations.

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