```
fmap-⇒ : ∀ {P Q sd sd′} → (P ⇒ₛ Q) sd → sd ≤ₛ sd′ → (P ⇒ₛ Q) sd′
fmap-⇒ P⇒Q sd≤ₛsd′ sd′≤ₛsd″ p = P⇒Q (≤ₛ-trans sd≤ₛsd′ sd′≤ₛsd″) p

fmap-ty : ∀ {A sd sd′} → ⟦ A ⟧ty sd → sd ≤ₛ sd′ → ⟦ A ⟧ty sd′
fmap-ty {comm} = fmap-⇒ {Compl} {Compl}
fmap-ty {intexp} = fmap-⇒ {Intcompl} {Compl}
fmap-ty {intacc} = fmap-⇒ {Compl} {Intcompl}
fmap-ty {intvar} ( exp , acc ) sd≤ₛsd′ =
  ( fmap-ty {intexp} exp sd≤ₛsd′ , fmap-ty {intacc} acc sd≤ₛsd′ )
fmap-ty {A ⇒ B} = fmap-⇒ {⟦ A ⟧ty} {⟦ B ⟧ty}

fmap-ctx : ∀ {Γ sd sd′} → ⟦ Γ ⟧ctx sd → sd ≤ₛ sd′ → ⟦ Γ ⟧ctx sd′
fmap-ctx {·} unit _ = unit
fmap-ctx {Γ , A} (γ , a) p = fmap-ctx γ p , fmap-ty {A} a p
```