Exercise M

Prove: (o ((curry map) f) ((curry map) g)) == ((curry map) (o f g))
To prove they are equal, I will prove that when applied to equal arguments, they return equal results.

(o ((curry map) f ((curry map) g)) xs)
= {apply-curried law}
(o ((curry map) f (map g xs)
= {apply-compose law}
(map f (map g xs)
= {apply-compose law}
(map (o f g) xs)
= {apply-curried law}
(((curry map) (o f g) xs)

Since (o ((curry map) f ((curry map) g)) xs) == (((curry map) (o f g) xs), then
(o ((curry map) f) ((curry map) g)) == ((curry map) (o f g))