

Solution

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[[fn f => fn x => if x > 0 then f x else f (-1 * x)]]FUN w -> report w

= (FUN w -> report w) (FN f k0 -> [[fn x => if x > 0 then f x else f (-1 * x)]]k0)

= (FUN w -> report w) (FN f k0 -> k0(FN x k1 -> [[if x > 0 then f x else f (-1 * x)]]k1))

= (FUN w -> report w)
  (FN f k0 -> k0(FN x k1 -> [[x > 0]]FUN a -> IF a THEN [[f x]]k1 ELSE [[f (-1 * x)]]k1))

= (FUN w -> report w)
  (FN f k0 -> k0(FN x k1 -> [[x > 0]]FUN a -> IF a THEN [[f]]FUN b -> [[x]]FUN c -> b c k1 ELSE [[f (-1 * x)]]k1))

= (FUN w -> report w)
  (FN f k0 -> k0(FN x k1 -> [[x > 0]]FUN a -> IF a THEN [[f]]FUN b -> (FUN c -> b c k1) x ELSE [[f (-1 * x)]]k1))

= (FUN w -> report w)
  (FN f k0 -> k0(FN x k1 -> [[x > 0]]FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f ELSE [[f (-1 * x)]]k1))

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      [[x > 0]]FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f ELSE [[f]]FUN b -> [[-1 * x]]FUN c -> b c k1))

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      [[x > 0]]FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f
      ELSE [[f]]FUN b -> [[(-1)]]FUN d -> [[x]]FUN e -> (FUN c -> b c k1) (d * e))

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      [[x > 0]]FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f
      ELSE [[f]]FUN b -> [[(-1)]]FUN d -> (FUN e -> (FUN c -> b c k1) (d * e)) x

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      [[x > 0]]FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f
      ELSE [[f]]FUN b -> (FUN d -> (FUN e -> (FUN c -> b c k1) (d * e)) x) -1

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      [[x > 0]]FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f
      ELSE (FUN b -> (FUN d -> (FUN e -> (FUN c -> b c k1) (d * e)) x) -1) f

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      [[x]]FUN g -> [[0]]FUN h -> (FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f
      ELSE (FUN b ->
        (FUN d -> (FUN e -> (FUN c -> b c k1) (d * e)) x) -1) f) (g > h))

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      [[x]]FUN g -> (FUN h -> (FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f
      ELSE (FUN b ->
        (FUN d -> (FUN e -> (FUN c -> b c k1) (g * h)) x) -1) f) (e > g)) 0

= (FUN w -> report w)
  (FN f k0 ->
    k0(FN x k1 ->
      (FUN g -> (FUN h -> (FUN a -> IF a THEN (FUN b -> (FUN c -> b c k1) x) f
      ELSE (FUN b ->
        (FUN d -> (FUN e -> (FUN c -> b c k1) (d * e)) x) -1) f) (g > h)) 0) x))

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