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Function h(tm,a)
  ;; Value is H if tm(a) halts;
  ;; Value is P if tm(a) is pathological;
  ;; Value is L if tm(a) simply loops forever.
  Return correct value for tm(a)
End h;

```

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Function h'(tm,a)
  ;; Inverts the meaning of H and L.
  ;; If tm(a) halts Then h'(tm,a) loops forever;
  ;; If tm(a) is pathological Then h'(tm,a) halts (returning H).
  ;; If tm(a) loops forever Then h'(tm,a) halts (returning H).
  Select h(tm,a)
    When H Then loop:Goto loop;
    When P Then Return H;
    when L Then Return H;
  End h';

```

```

Function hat(tm)
  ;; If tm(tm) halts Then hat(tm) loops forever;
  ;; If tm(tm) is pathological Then hat(tm) halts (returning H).
  ;; If tm(tm) loops forever Then hat(tm) halts (returning H).
  Return h'(tm,tm);
End hat;

```

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;; And we now learn that this doesn't work either!
;;           For hat(hat)
;; If hat(hat) halts Then hat(hat) loops forever
;; If hat(hat) is pathological Then hat(hat) halts (returning H).
;; If hat(hat) loops forever Then hat(hat) halts (returning H).
Evaluate hat(hat);

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