### Problem 1: §1.3 #50

### Answers:

(a) $f(g(1)) =$	(b) $g(f(1)) =$	(c) $f(f(1)) =$
(d) $g(g(1)) =$	(e) $(g \circ f)(3) =$	(f) $(f \circ g)(6) =$

Problem 2: §1.5 #30 Work:

#### Answers:

(a) number after 3 hours is

(b) number after t hours is

(b) x =

(c) number after 40 minutes is

Problem 3: §1.6 #50 Work:

**Answers:** (a) x =

# Problem 4: §2.1 #6 Answers:

- (a) (i) on [1, 2],  $v_{avg} =$
- (ii) on  $[1, 1.5], v_{avg} =$
- (iii) on [1, 1.1],  $v_{avg} =$
- (iv) on [1, 1.01],  $v_{avg} =$
- (v) on [1, 1.001],  $v_{avg} =$
- (b)  $v(1) \approx$

Problem 5: §2.6 #14 Work:

### Answers:

(a) v(1) =

(b) v(a) =

(c) t =

(d) v =

## Problem 6: $\S2.7 \# 44$

**Answers:** (i) position is curve

(ii) velocity is curve