Problem 1: §4.3 #34

Answers:

(a) vertical asymptote(s):   horizontal asymptote(s):

(b) $f'(x) =$

$f(x)$ increasing on $f(x)$ decreasing on

(c) local extrema (points):

(d) $f''(x) =$

$f(x)$ concave up on $f(x)$ concave down on

inflection points:

(e) (sketch)

Problem 2: §4.3 #38

Answers:

(a) vertical asymptote(s):   horizontal asymptote(s):

(b) $f'(x) =$

$f(x)$ increasing on $f(x)$ decreasing on

(c) local extrema (points):

(d) $f''(x) =$

$f(x)$ concave up on $f(x)$ concave down on

inflection points:

(e) (sketch)

Problem 3: §4.5 #20

Work:

Answer:

Problem 4: §4.5 #32

Work:

Answer:

Problem 5: §4.5 #34

Work:

Answer:

Problem 6: §4.5 # 42

Work:

Answer: