Quiz 1

Multiple Choice

1 (25 pts)
If y is the solution of the initial value problem

$$y' = x - y$$

starting from y(0) = 1, then y(1) =

(a) $1 - 3e^{-1}$

(b) $1 + 2e^{-1}$

(c) $1 - e^{-1}$

(d) $2e^{-1}$

(e) e^{-1}

2 (25 pts)
If y is the solution of the initial value problem

$$\frac{dy}{dx} = \frac{2x(y-2)}{x^2+1}$$

with y(0) = 4, then y(1) =

(a) 12

(b) 10

(c) 8

(d) 6

(e) 4