

Math101 Term191
Sec17 Quiz 4

Name	ID	Sr
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Instruction: CIRCLE one answer and SHOW all your work to get full mark

Q1) If $f(x) = \frac{1}{3x-1}$, then $f^{(71)}\left(\frac{4}{3}\right) =$

a) $-\frac{71!}{3}$

b) $-\frac{71!}{3^{72}}$

c) $\frac{71!}{3}$

d) $71!(3^{71})$

e) $71!$

Q2) If $y^2 - 2x = 1 - 2y$, then $y'' =$

a) $\frac{x-y}{(1+y)^2}$

b) $\frac{-x}{(1+y)^2}$

c) $\frac{-1}{(1+x)^2}$

d) $\frac{1}{(1+y)^2}$

e) $-\frac{1}{(1+y)^3}$

Q3) Let $g(x) = [f(\sin x)]^3$. If $f(0) = -2$ and $f'(0) = 5$.
Then $g'(\pi) =$

a) -120

b) -60

c) -12

d) -4

e) -15

Q4) If $f(x) = \frac{(x+2)(x+3)(x+5)e^{x^2}}{\sqrt{x+1}}$, then $f'(0) =$

a) $\frac{8}{15}$

b) $\frac{4}{15}$

c) 16

d) $\frac{2}{15}$

e) 8