Quiz 5 Key — MA16010 — September 29, 2017
Alden Bradford

Min	Mean	Max
1	3.75	5

1. (1 point) Find $\dfrac{d^2y}{dx^2}$ if $y = 2\ln(3x)$.

$$\frac{d^2y}{dx^2} = -\frac{2}{x^2}$$

2. (2 points) Find $f'(x)$ when $f(x) = (\cos(x))^3$.

$$f'(x) = 3(\cos(x))^2(-\sin(x))$$

3. (2 points) Find $g'(x)$ when $g(x) = x^4 e^{2x}$.

$$g'(x) = 4x^3 e^{2x} + 2x^4 e^{2x}$$