

**Quiz 13 Key — MA16010 — November 8, 2017**

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Min	Mean	Max
1	3.4	5

1. (2 points) Find the derivative of  $-\frac{1}{2} \cos(x^2)$ .

$$x \sin x^2$$

2. (2 points) Use your answer from part 1 to find  $\int 8x \sin(x^2) dx$ .

$$-4 \cos(x^2) + C$$

3. (1 point)  $y'(x) = 8x \sin(x^2)$  and  $y(0) = 4$ . Use your answer from part 2 to find  $y(x)$ .

$$-4 \cos(x^2) + 8$$