

Solomon Practice Paper

Pure Mathematics 3G

Time allowed: 90 minutes

Centre: www.CasperYC.club

Name:

Teacher:

| Question | Points | Score |
|----------|--------|-------|
| 1 | 5 | |
| 2 | 8 | |
| 3 | 8 | |
| 4 | 9 | |
| 5 | 10 | |
| 6 | 10 | |
| 7 | 12 | |
| 8 | 13 | |
| Total: | 75 | |

How I can achieve better:

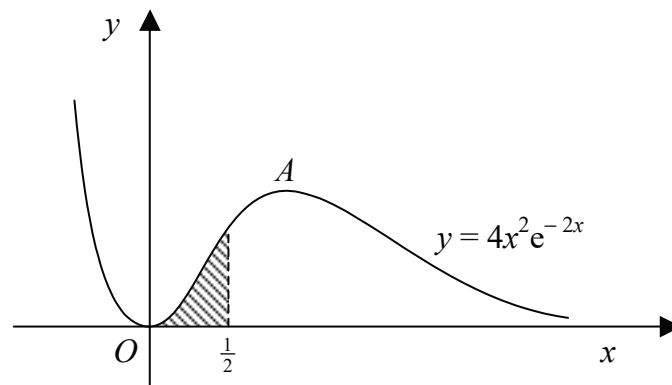
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8. Figure shows the curve with equation $y = 4x^2e^{-2x}$.



The curve is stationary at the origin, O , and at the point A .

(a) Find the coordinates of point A .

[4]

The shaded region is bounded by the curve, the x -axis, and the line $x = \frac{1}{2}$.

(b) Show that the area of the shaded region is $\left(1 - \frac{5}{2}e^{-1}\right)$.

[9]

Total: 13

