

# Answers: Definite integration

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## Summary

Answers to questions relating to the guide on definite integration.

*These are the answers to [Questions: Definite integration](#).*

**Please attempt the questions before reading these answers!**

## Answers

### Q1

- 1.1. 6
- 1.2. 0
- 1.3.  $\frac{21}{2}$
- 1.4. 120
- 1.5.  $\frac{20}{3}$
- 1.6.  $\frac{1462}{5}$
- 1.7.  $\frac{8}{3}$
- 1.8.  $\frac{171}{4}$

### Q2

- 2.1. 48
- 2.2.  $\frac{91}{3}$
- 2.3.  $\frac{52}{5}$
- 2.4. 24
- 2.5.  $-\frac{29}{6}$
- 2.6. 10

- 2.7. 38
- 2.8. 20
- 2.9.  $\frac{39}{4}$
- 2.10.  $\frac{62}{3}$

### Q3

- 3.1. 1
- 3.2. 0
- 3.3. 1
- 3.4. 0
- 3.5. 2
- 3.6.  $\frac{1}{2}$
- 3.7. 0
- 3.8. 0
- 3.9.  $\frac{1}{2}$
- 3.10. 0

### Q4

- 4.1.  $\frac{\sqrt{3}}{4}$
- 4.2.  $-\frac{1}{3} - \frac{1}{3\sqrt{2}}$
- 4.3.  $\frac{\sqrt{3}+1}{2}$
- 4.4.  $-\frac{\sqrt{3}}{4}$
- 4.5. 0
- 4.6.  $-\frac{1}{2}$
- 4.7. 0
- 4.8.  $\sqrt{2} - \frac{1+\sqrt{3}}{2}$
- 4.9.  $-\frac{1}{6}$

4.10.  $-\frac{\sqrt{2}}{3}$

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## Version history and licensing

v1.0: initial version created 05/25 by Donald Campbell as part of a University of St Andrews VIP project.

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