

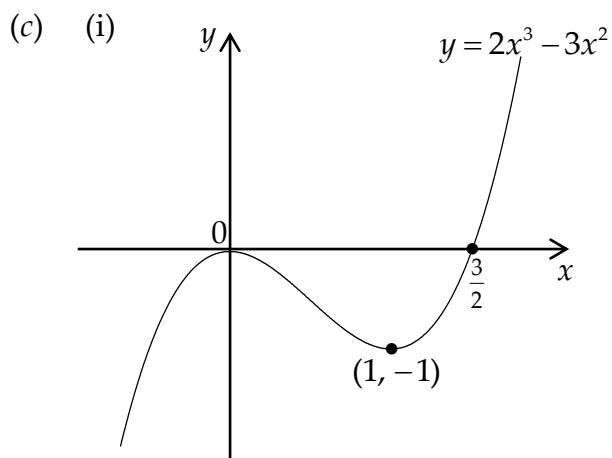
Paper 1

Section A

- | | | | |
|-----|---|-----|---|
| 1. | A | 11. | A |
| 2. | B | 12. | C |
| 3. | A | 13. | C |
| 4. | D | 14. | D |
| 5. | A | 15. | C |
| 6. | B | 16. | B |
| 7. | C | 17. | B |
| 8. | D | 18. | A |
| 9. | D | 19. | D |
| 10. | B | 20. | B |

21. (a) $(0, 0)$ and $(\frac{3}{2}, 0)$

- (b) Maximum turning point at $(0, 0)$
Minimum turning point at $(1, -1)$



(ii) $x > \frac{3}{2}$

22. (a) Limit : 14

(b) $k = \frac{6}{7}$

23. (a) $\sin(a+b) = \frac{2}{\sqrt{5}}$

(b) $\tan(a+b) = -2$

24. 8

Paper 2

1. (a) $k = -5$
 (b) $\left\{-2, -1, \frac{3}{2}\right\}$
2. (a) B(8, 5, 0) and G(0, 5, 7)
 (b) 72.1° (or 1.258 rads)
3. (a) Centre : (2, 1) Radius : 5 units
 (b) (i) Proof
 (ii) $4x + 3y - 11 = 0$
 (c) $3x - 4y - 17 = 0$

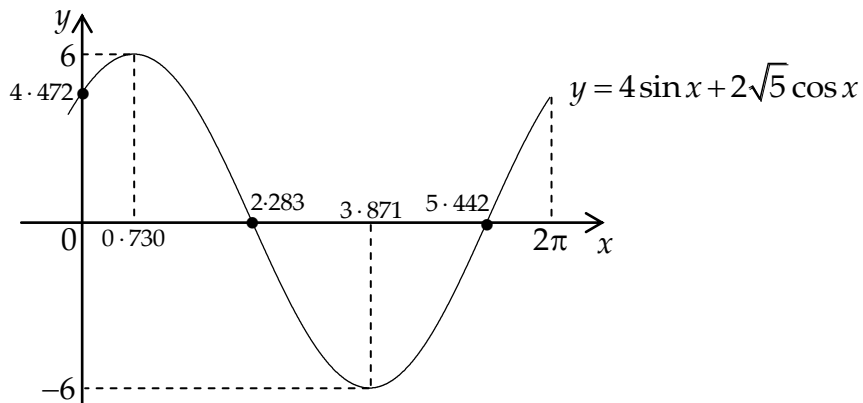
4. $\{1.231, 5.052\}$

5. (a) $\frac{63}{4}$ square units (or 15.75)
 (b) 19.37

6. $c = 2$

7. (a) $3\sin(x + 0.841)$

(b)



8. (a) $27.3g$
 (b) 3.85 years

9. $1 - \frac{\sqrt{3}}{2} \approx 0.134$