Paper 1

Section A

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

Section B

21. (*a*) $x = 4$

(*b*) $3x - 2y + 9 = 0$

(*c*) $\left(4, \frac{3}{2}\right)$

22. (*a*) Proof e.g. show that $\overrightarrow{QR} = 2\overrightarrow{PQ}$

(*b*) $1 : 2$

23. $x + y - 4 = 0$

24. (*a*) $f(x) = x^3 + x^2 - 10x + 8$

(*b*) $f(x) = (x-2)(x-1)(x+4)$

(*c*) $\{-4, 1, 2\}$

25. $a = 16$ and $b = -4$

Paper 2

1. (*a*) $k = \frac{1}{3}$

   (*b*) $-1 < \frac{1}{3} < 1$

   (*c*) -9

2. $p = -1,\ \ q = -8$

3. $75 \cdot 8^\circ$ or $1 \cdot 323$ radians

4. (*a*) S(−1, 3) and T(2, −3)

   (*b*) $\frac{9}{2}$ square units

5. (*a*) $C_1(1, 3)$ and radius 5 units

   (*b*) $(x-11)^2 + (y-3)^2 = 100$

6. (*a*) Proof

   (*b*) (i) 24 (ii) £1 216 384

7. (*a*) 0·549

   (*b*) 21 600

8. (*a*) $\sqrt{29}\cos(x + 68 \cdot 2)^\circ$

   (*b*) (i) $\sqrt{29}\cos(2x + 68 \cdot 2)^\circ$ (ii) $\{135, 156 \cdot 8, 315, 336 \cdot 8\}$