

MATHEMATICS

Answer for Paper 1

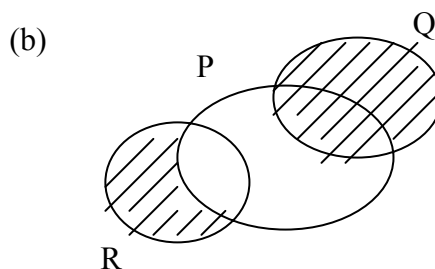
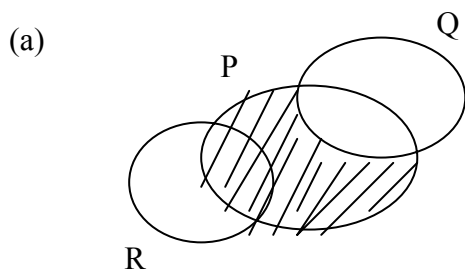
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|-------|-------|-------|-------|
| 1. B | 11. C | 21. A | 31. B |
| 2. B | 12. B | 22. B | 32. C |
| 3. C | 13. D | 23. D | 33. B |
| 4. C | 14. A | 24. D | 34. C |
| 5. C | 15. B | 25. B | 35. C |
| 6. B | 16. A | 26. C | 36. D |
| 7. C | 17. B | 27. B | 37. D |
| 8. A | 18. C | 28. C | 38. B |
| 9. C | 19. D | 29. D | 39. A |
| 10. B | 20. C | 30. B | 40. D |

Answer for Paper 2

1. **Answer:** $k = \frac{5}{2}$, $k = -4$

2. **Answer:** $p = 4$, $q = 6$

3. **Answer:**



4. **Answer:**

(a) Statement

(b) y^2 is not divisible by 4

(c) Implication 1 : If $(x + 1)(x - 4) = 0$, then $x = -1$ or $x = 4$

Implication 2 : If $x = -1$ or $x = 4$, then $(x + 1)(x - 4) = 0$

5. **Answer:** $3\,817.57 \text{ cm}^3$

6. **Answer:** (a) 23.75 cm (b) $63^0 26'$

7. **Answer:** (a) $\frac{3}{7}$ (b) $\frac{9}{14}$ (c) $\frac{1}{2}$

8. **Answer:** (a) $h = 4$, $k = -3$ (b) $x = 5$, $y = -2$

9. **Answer:**
 (a) 2 (b) $y = 2x - 4$ (c) (2,0)

10. **Answer:**
 (a) 2 (b) 87 (c) 12

11. **Answer:** (a) 26.40 cm (b) 15.44 cm^2

12. (a)

x	- 2	5
y	- 35	- 21

(c) (i) - 7.5 (ii) - 0.5, 4.5

(d) $-2x^2 + 3x + 9 = 0$
 $-2x^2 + 3x + 9 + 5x - 20 = 5x - 20$
 $-2x^2 + 8x - 11 = 5x - 20$
 $y = 5x - 20$
 Draw a graph $y = 5x - 20$
 $x = -1.7, 3.5$

13. **Answer:**

(a) (i) (7,2) (ii) (-1,6) (iii) (2,5)

(b) X = Reflection in the line NQ_0
 Y = Clockwise rotation of 90° about R

14. Answer:

(a) 79 (1 mark)

(I)	(II)	(III)
Distance (km)	Midpoint	Frequency
11 – 20	15.5	5
21 – 30	25.5	3
31 – 40	35.5	3
41 – 50	45.5	4
51 – 60	55.5	10
61 – 70	65.5	8
71 – 80	75.5	4
81 – 90	85.5	1
91 – 100	95.5	2

(Column 1 = 1 mark)

(Column 2 = 1 mark)

(Column 3 = 2 marks)

$$(c) \frac{15.5(5) + 25.5(3) + 35.5(3) + 45.5(4) + 55.5(10) + 65.5(8) + 75.5(4) + 85.5(1) + 95.5(2)}{40}$$

(2 marks)

$$= \frac{2100}{40} \text{ or } 52.5$$

(1 mark)

(d) Draw a graph

10 plotted correctly

(2 marks)

Joining points

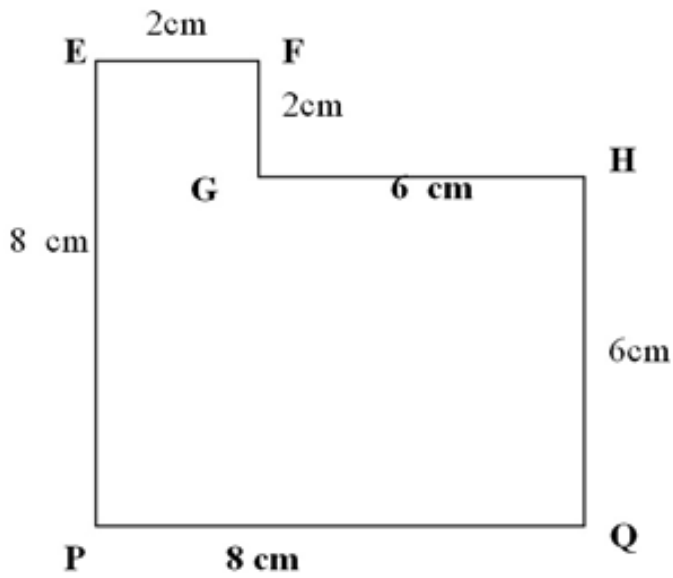
(1 mark)

A straight line from point (5.5,0) to point (15.5,5) and (95.5, 1) and (105.5,0)

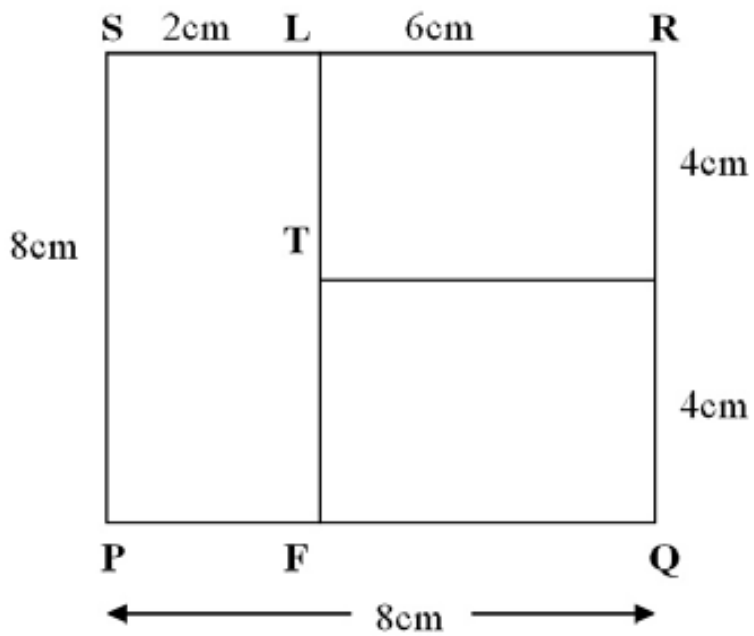
(1 mark)

15. Answer

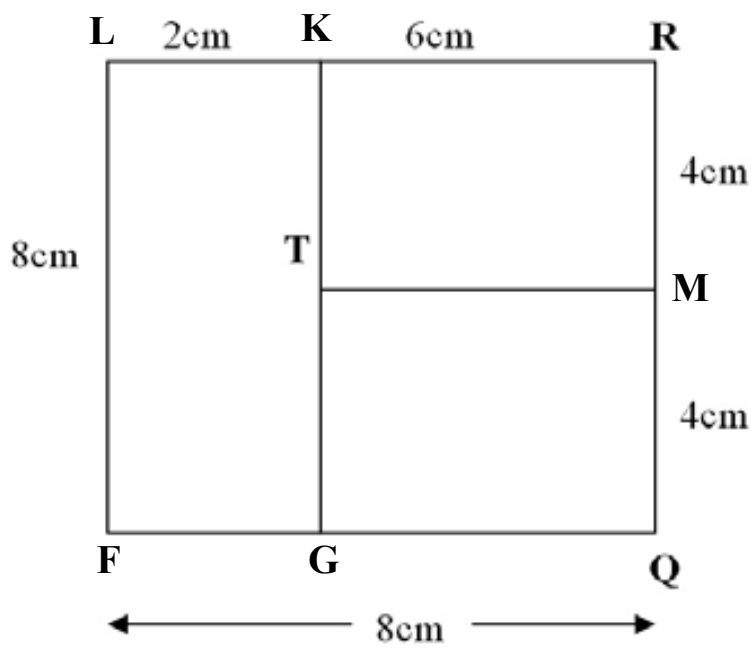
(a) X



(b) (i) Plan



(b) (ii) Y



16. Answer:

(a) (i) 30° S (ii) 115° E (b) 9 352.8 n.m (c) 0715