CATapult Courseware

Module 2
Answer Key

ANSWER KEY
CLASS EXERCISES – QUANTITATIVE ABILITY
CHAPTER QA 2.1

1-a-(4, 0), (3, 1), (2, 2), (1, 3), (0, 4)   b-(9, 0), (6, 2), (3, 4), (0, 6)

c-(2, 4), (0, 15)   d-(9, 0), (6, 2), (3, 4), (0, 6)

2-a-101   b-11   c-Infinite   d-0   3-a-5 solutions   b-26 solutions

4-1 Rupee   5-a-$x^2 - 7x + 14 = 0$ b-$x^2 - 9x + 64 = 0$ c-$8x^2 - 5x + 1 = 0$

d-$x^2 - 5x + 512 = 0$

6-

Polynomial	Discriminant $(\Delta = b^2 - 4ac)$	Roots	Nature of roots
$x^2 - 5x - 6$	49	6, −1	Real distinct
$6x^2 - x - 2$	49	$-\dfrac{1}{2}, \dfrac{2}{3}$	Real distinct
$x^2 - 3$	12	$\sqrt{3}, -\sqrt{3}$	Real distinct
$x^2 + 4x - 6$	40	$-2 + \sqrt{10}, -2 - \sqrt{10}$	Real distinct
$x^2 + 4x + 4$	0	−2, 2	Single repetitive
$x^2 + 4$	−16	2i, -2i	Complex

7-a-$x^2 - 3x + 1 = 0.8$ b-$2x^2 - 9x + 9$.   c-i-$\Delta = b^2 - 4ac = k^2 - 16 > 0$.

ii-k = 4 or -4.   iii-−4 < k < 4   d-2   e-p = $\dfrac{1}{4}$

f-$x^2 - 10x + 20 = 0$.   g-$6x^2 + 5x + 2 = 0$ h-30   i-x = 4, 6

j-$\Delta = b^2 - 4ac = 6m^2 - 12m + 6 + 12m = 6m^2 + 6$ which is always > 0

8-2   9-3   10-2   11-2   12-3   13-3   14-3

Challengers

1-2   2-4   3-2   4-3   5-3

CHAPTER QA 2.2

1-a-$-5x + 7$ b-0   c-$x^3 + 6x^2 + 11x + 6$ 2-a-Q = x^2, R = 1

b-Q = $x^2 - x + 1$, R = −1   c-Q = $x^3 + x + 1$, R = 0   d-Q = 0, R = $x^4 - x^3 + x^2 - 1$

e-Q = $x^2 - x + 1$, R = −1   f-Q = $14x^2 - 2$, R = $14x^2 + 25$

g-Q = $x^6 - x^4 + x^3 - x + 1$, R = 0

3-a-1   b-i-not divisible   ii-divisible   c-i-1   ii-31   d-divisible

4-a-(x − 1)(x − 1)(x + 3)   b-(x + 2)(x + 3)(x − 5)

c-$\left(\sqrt{2}x - \sqrt{3}\right)\left(\sqrt{2}x + \sqrt{3}\right)$ d-($3x^2 + 2x + 6$) (x + 1)   e-(x − 3)(x − 5)(x − 7)

5-a-LCM = 6y(2y − 3)(y + 1)(2y + 3)   b-HCF = y(y + 2).

6-except (iv) and (vii), all are factors of $a^6 - b^6$.   7-i-True   ii-True   iii-False   iv-True   v-False

vi-True   vii-False   viii-False   8-$a^8 + 1$ 9-i-True   ii-True

10-$x^{14} - x^{-10}$	11-$1/4$	12-0	13-3	14-2	15-4	16-1 17-a-7

b-13 c-$x = 6$ d-37 e-$\dfrac{6}{13}$ 18-$0, -1, -2, -3$ 19-$8x^3 - 2x^2 - 5x - 1 = 0$

Challengers

1-$1^{2016} + 1 - 1 = 1$ 2-a-1 and -1 b-$y = \dfrac{1}{2}$, i.e. $x = \dfrac{1}{4}$

c-$y = 3$ or -1, i.e. $x = 27$ or -1 3-a-$m = -1$ b-No c-1 4-4 5-1 6-2

CHAPTER QA 2.3
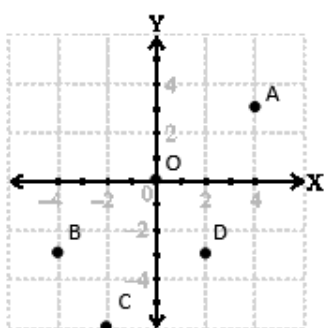
1- 2-a-5 units b-6 units c-5 units

d-$2\sqrt{10}$ units 3-$(-1, -3)$ 4-$(0, -\dfrac{9}{2})$ 5-$\left(-2, -\dfrac{3}{2}\right)$ 6-$(-20, -15)$

7-$\dfrac{9}{2}$ units 8-$\dfrac{5}{2}$ 9-$(-16, -12)$ 10-$(19, 14)$ 11-$(-23, 36)$

12-a-$y = 7, 5, 3, 1, -1, -3, -5$

b-refer to explanatory answer c- -2 13-a-$y = -3, -2.5, -2, -1.5, -1, -0.5, 0$

b-refer to explanatory answer c-+ 0.5 14-$(1, -1)$ 15-a- $m = \frac{1}{2}$ b-$m = -3$

c-m is not defined 16-refer to explanatory answer

17-a-Infinitely many such lines b-$y = -2x + 7$ c-$y = 2x - 3$ d-$y = 3x - 2$

e-Two possible lines ($y = \pm2$) f-$y = -x - 4$ g-$\dfrac{x}{3} + \dfrac{y}{2} = 1$ or $y = -\dfrac{2}{3}x + 2$

h-$x = -2$ i- $y = -\dfrac{1}{3}x + \dfrac{17}{3}$ 18-a- $y = -\dfrac{4}{7}x$ b-$x = 3$ c-$y = 0$ d-$y = -x + 3$

e-$y = -2x$ 19-refer to explanatory answer 20-refer to explanatory answer

21-1–e, 2–h, 3–g, 4–a, 5–d, 6–f, 7–c, 8–b 22-2 23-6 24-$\dfrac{8}{\sqrt{5}}$

25-a-$(6, 6)$ b-12 26-a-$(3, -4)$ b-5 27-a-$(-2, 3)$ b-7

Challengers

1-a-No b-No c-Yes d-No 2-4 3-$x = 2$ 4-10 units

CHAPTER QA 2.4

1 to 3- Refer to Explanatory Answers

4-a- Minimum value of 0 at $x = -\dfrac{3}{2}$ b-Minimum value of 2 at x = 3

c- Maximum value of 5 at x = − 2   d-Maximum value of 3 at x = 1

5-a-Minimum, $\left(-\dfrac{5}{2}, -\dfrac{49}{4}\right)$ b-Minimum, $\left(\dfrac{1}{2}, 0\right)$ c-Minimum, (−1, 2) d-Maximum, $\left(-\dfrac{3}{2}, \dfrac{49}{4}\right)$

Challengers

1-3   2-4   3-2   4-1   5-3   6-Refer to Explanatory Answer

CHAPTER QA 2.5

1-1-15   2-15   3-150   4-$6x^4 - 5$ 5-1.5   6-16

2-1-(0,∞)   2-(-1, 1) 3-1-even   2-odd 3-neither   4-odd

4-Refer to Explanatory Answer   5-it is not a well-defined function on R.   6-3

7-1-Onto   2-Into   3-Onto   4-Into   8-Refer to Explanatory Answer

9-2   10-2   11-2   12-2   13-2   14-4

15-a-4   b- −5, −2, 1, 4 c-Positive   16-Refer to Explanatory Answer

17-1-(1, 4) and (6, 4)   2-$(4 + \sqrt{2}, \sqrt{2})$ and $(4, -\sqrt{2}, -\sqrt{2})$ 3- −(3, 2) and (1, 0)

4-(4, -2)   5-(3, -24) and $\left(\dfrac{3}{2}, \dfrac{63}{4}\right)$ 6-there is no point of intersection   7-(-2, 6)

8-$\left(\dfrac{1}{2}, \dfrac{35}{8}\right)$ 18-1-1 and −1   2-0 and 1   3-x = 1 and x = -1

Challengers

1-a-6 and 9   b-5 and -1   c-5   d-Refer to Explanatory Answer

2-3   3-1   4-4   5-3   6-1

CHAPTER QA 2.6

1-Refer to Explanatory Answer

2-a-(−∞, 4)   b-[6, ∞)   c-(−∞, 2.5)   d-(−4, −1]   e-(−3, 11]

3-3 4-a-(−5, 5)   b-(−∞, −3) ∪ (7, ∞)   c-[-24, 4]   d-(−2.5, 0.5) ∪ (1, 4)

e-(−∞, ∞)   5-a-(−4, 4)   b-(−∞, −7] ∪ [7, ∞)   c-(−4, 8)   d-(−6, 3)

e-(−∞, −1) ∪ (7/3, ∞)   6-a-(− 1, 2)   b-(−∞, −1) ∪ (2, ∞)   7-3   8-1   9-3

10-2   11-1   12-3   13-two   14-2

Challengers

1-4   2-3   3-2   4-2   5-1   6-4   7-4

CHAPTER QA 2.7

1-a-550   b-54   c-2^{63} d-107200   2-a-298   b-58th term c-14950   d-6

3-a-1   b-1   c-1   4-S = 2   5- n - $\frac{1}{3}\left(1 - \frac{1}{4^n}\right)$ 6-a-193   b-89   c-36

7-a-7n + 8   b-2^n + 3   c- $\frac{1}{2}$ (n + 1)(n + 2) or $\frac{1}{2}$ (n^2 + 3n + 2)

8-a-210 − 55 = 155   b-1240 − 55 = 1185   c-285   9-S = 1/3   10-10.After 9 minutes

11-a-8   b-15

Sequences, Series and Progressions: Examples

1-a-T_5 = 2T_4 + 3 = 77   b-T_2 = 2T_1 + 3 => T_1 = 5   c-6105   2-0   3-4   4-3

5-2   6-1   7-$\frac{99}{100}$ 8-9   9-4   10-1   11-4   12-3   13-1   14-$\frac{1}{2}$

15-3   16-1   17-3

Challengers
 1-1   2-4   3-1   4-3   5-3

ANSWER KEY
CLASS EXERCISES – DI-LR

CHAPTER DI 2.1

1-a-1	b-4	c-2	d-3	2-a-3	b-2	3-a-2	b-3	4-a-2	b-4
5-a-1	b-2	6-4	7-3	8-2	9-4	10-4	11-1	12-1	13-2
14-3	15-1	16-4	17-3	18-2	19-3	20-i	21-v	22-iv	23-i

Challengers

1-4	2-2	3-1	4-2

CHAPTER DI 2.2

1-250	2-1610	3-215	4-1	5-2	6-3	7-2	8-4	9-1	10-4
11-2	12-3	13-2	14-4	15-1	16-2				

Challengers

1-4	2-2	3-3	4-4

CHAPTER DI 2.3

1-2	2-1	3-4	4-3	5-4	6-2	7-3	8-1	9-2	10-5
11-1	12-3	13-3	14-3	15-4	16-1	17-2	18-2	19-1	20-1
21-3	22-4								

Challengers

1-1	2-2	3-3	4-4	5-4

CHAPTER LR 2.1

1-The two are cousins   2-Laurie helps his father Jeremy in the Fitness Academy
3-They are siblings   4-i-A is G's nephew   ii-C is F's paternal aunt
iii-C and G are sisters in law
5-Engineer = O   6-2 children   7-Maternal aunt   8-M must be the lawyer
9-2   10-3   11-a-IRSDIVE   b-EFNPDSBU   c-POLKA   d-YEMEN
e-PURPLE   f-PANAMA   g-VAQBER   h-URUGB   i-1291331
j-41196100225   k-115   l-71995457
12-a-EERZAH   b-NBIFTI   c-JAB   d-TUFSNJOJ   e-HQRKQK
f-RDHNYVGL g-NRGSFM   h-451289   i-41448119616   j-108

13-4	14-3	15-3	16-4	17-1	18-3	19-3	20-4	21-3	22-2
23-3-	24-4	25-3							

Challengers

1-2	2-4	3-2	4-3	5-4	6-1	7-4

ANSWER KEY

CLASS EXERCISES – Verbal Ability

CHAPTER VA 2.1

1-4	2-3	3-2	4-2	5-4	6-4	7-4	8-2	9-1	10-3
11-3	12-3	13-1	14-4	15-1	16-4	17-3	18-4	19-4	20-2
21-4	22-3	23-2	24-3	25-3	26-4	27-4	28-2		

CHAPTER VA 2.2

1- to 10-Refer to the Explanatory Answers									
11-2	12-2	13-2	14-3	15-3	16-4	17-4	18-1	19-2	20-3
21-4	22-4	23-1	24-2	25-1	26-3	27-3	28-1	29-2	30-2
31-1	32-2	33-1	34-4	35-4	36-1	37-3	38-3	39-2	40-1

CHAPTER VA 2.3

1-2	2-3	3-2	4-4	5-4	6-4	7-1	8-3	9-4	10-4
11-3	12-4	13-3	14-3	15-2	16-3	17-4	18-1	19-2	20-2
21-2									

CHAPTER VA 2.4

1-2	2-1	3-2	4-3	5-4	6-1	7-2	8-4	9-1	10-3
11-2	12-4	13-2	14-4	15-4	16-4	17-1	18-1	19-1	20-4
21-1	22-3	23-3	24-1	25-3	26-2	27-2	28-4	29-3	30-3
31-2	32-3	33-1	34-2						

CHAPTER VA 2.5

1-1	2-1	3-3	4-4	5-2	6-2	7-1	8-3	9-3	10-4
11-4	12-2	13-1	14-3	15-1	16-3	17-2	18-4	19-2	20-1
21-3	22-2	23-1	24-4	25-4	26-2	27-3	28-1	29-2	30-4

CHAPTER VA 2.6

1-1	2-1	3-2	4-2	5-1	6-4	7-3	8-1	9-4	10-3
11-2	12-1	13-4	14-1	15-3	16-4	17-1	18-2	19-3	20-3
21-1	22-1	23-4	24-2	25-3					

ANSWER KEY
PRACTICE EXERCISES – QUANTITATIVE ABILITY

CHAPTER QA 2.1

Practice Exercise 1

1A- 4 solutions   1B- 3 solutions   1C- No Solution   1D- 8 Solutions

2-4	3-3	4-3	5-1	6-4	7-3	8-4	9-4	10-1	11-3
12-8	13-2	14-1	15-2	16-3	17-4	18-3	19-3	20-390	

Practice Exercise 2

1A- 19 Solutions   1B- 21 Solutions   1C- 9 Solutions   1D- 13 Solutions   1E- 12 Solutions

2-10 Solutions

3-4	4-1	5-3	6-2	7-3	8-2	9-4	10-3	11-2	12-3
13-2	14-3	15-2	16-2	17-1	18-1	19-2	20-0		

CHAPTER QA 2.2

Practice Exercise 1

1-2	2-2	3-3	4-4	5-47	6-56800

7-i) b   ii) e   iii) f   iv) d   v) a   vi) c

8-a) −7   b)7/2   c)5/2   d)−5/14   e)29/4

9-3	10-3	11-3	12-4	13-2	14-4	15-1	16-2	17-3	18-50
19-2	20-0							

Practice Exercise 2

1. Roots are 1, −1, −3, 4 and $\sqrt{2}$.

2-3	3-1	4-1	5-4	6-4	7-4	8-3	9-2	10-4	11-1
12-1	13-1	14-4	15-2	16-12	17-0	18-51	19-1	20-296	

CHAPTER QA 2.3

Practice Exercise

1. a) $4x + 7y = 0$ b) $7x − 4y = 0$ c) $4x + 7y = 15$ d) $7x − 4y = 10$

2. 1 − h   2 − f   3 − j   4 − e and j

   5 − a and h   6 − i   7 − d   8 − b and g

   9 − f and c   10 − f and c

3-2	4-3	5-1	6-4	7-3	8-1	9-1	10-3

11-3   12-a) Centre = (−2, −3), Radius = 3   b) Centre = (−4, 1), Radius = 9

13-3	14-2	15-4	16-4	17-14	18-4	19-1	20-3

CHAPTER QA 2.4

<div style="text-align:center">**Practice Exercise**</div>

1. a) $-7 \le x \le 1$
   b) For all values of x.

2. a) minima at $x = -\dfrac{5}{2}$ and the minimum value is -59.

   b) maxima at $x = 4$ and maximum value is 46.

   c) maxima at $x = \dfrac{11}{2}$ and has maximum value of $\dfrac{49}{4}$.

   d) minima at $x = -\dfrac{7}{2}$ and the minimum value is $-\dfrac{37}{4}$.

   e) Therefore, maximum value of y is $\dfrac{17}{3}$.

   f) Minima at $x = -4$ or -6 and minimum value of y is 2.

   g) Minima at $x = -4/3$ and minimum value is $-\dfrac{1}{3}$.

3–3	4-1	5-4	6-2	7-1	8-2	9-6

10. a) 43 points

    b) 34 points

    c) 81 points

11-1	12-1	13-1	14-3	15-1	16-1	17-4	18-2	19-4	20-1

CHAPTER QA 2.5

Practice Exercise 1

1-2	2-3	3-3	4-4	5-18	6-511	7-1	8-2	9-4	10-2
11-1	12-2	13-2	14-4	15-2	16-2	17-4	18-2	19-2	20-3

Practice Exercise 2

1-3	2-2	3-2	4-4	5-3	6-4525	7-3	8-4	9-2	10-4
11-2	12-1	13-3	14-1	15-3	16-2	17-2	18-4	19-2	20-3

CHAPTER QA 2.6

Practice Exercise

1-2	2-2	3-1	4-4	5-3	6-1	7-3	8-3	9-3	10-4
11-1	12-2	13-3	14-2	15-1	16-4	17-3	18-3	19-2	20-4

CHAPTER QA 2.7

Practice Exercise 1

1-2	2-3	3-1	4-4	5. a) 25 b) $d = \frac{5}{6}$ and a = −10			6-2		7-2
8-1	9-1	10-2	11-1	12-3	13-3	14-3	15-4	16-177	17-175
18-3	19-2	20-3							

Practice Exercise 2

1-166, 650		2-2451	3-270	4-2	5-1	6-3	7-3	8-3	9-2
10-2	11-1	12-3	13-1	14-1	15-3	16-2	17-4	18-1	19-8
20-25									

ANSWER KEY
PRACTICE EXERCISES
DATA INTERPRETATION & LOGICAL REASONING

CHAPTER DI 2.1

Practice Exercise

1-1	2-4	3-1	4-2	5-4	6-2	7-3	8-1	9-3	10-2
11-3	12-3	13-16	14-4	15-3	16-3				

CHAPTER DI 2.3

Practice Exercise 1

1-2	2-4	3-2	4-3	5-2	6-0	7-2015	8-2	9-1	10-2
11-3	12-2	13-2	14-1	15-5	16-2				

Practice Exercise 2

1-3	2-4	3-2	4-3	5-1	6-1	7-3	8-1800	9-8	10-81
11-2600		12-600	13-600						

CHAPTER LR 2.1

Practice Exercise 1

1-6	2-2	3-1	4-1	5-3	6-2	7-1	8-4	9-2	10-2
11-4	12-1	13-4	14-2	15-1	16-4				

17-either the nephew or the niece of John

18- a) DRAVID : WREZIW : : **KALLIS** : HROOZP (the word is reversed and then reverse-coded)

b) POTTER : 111277229 : : WEASLEY : **42226815222** (reverse position of letters in the alphabet)

c) INCEPTION: KLECRRKMP : : TITANIC : **VGVYPGE** (alternate +2, -2, pattern)

d) BACK : 66 : : FACE : **90** (Product of the positions of letters)

19-2   20-2

CHAPTER LR 2.2

Practice Exercise 1

1-1	2-3	3-4	4-2	5-1	6-3	7-1	8-2	9-1	10-3
11-4	12-2	13-2	14-1	15-4	16-3				

Practice Exercise 2

1-4	2-1	3-3	4-2	5-0	6-3	7-4	8-1	9-2	10-3
11-2	12-4	13-2	14-3	15-1	16-4				

ANSWER KEY
PRACTICE EXERCISES – VERBAL ABILITY

CHAPTER VA 2.1

Practice Exercise 1									
1-2	2-3	3-1	4-4	5-1	6-3	7-4	8-2	9-1	10-2
11-2	12-2	13-4	14-4	15-3	16-2	17-1	18-3	19-1	20-1
21-4	22-3	23-1	24-3	25-2					

Practice Exercise 2									
1-3	2-1	3-3	4-2	5-3	6-4	7-3	8-1	9-2	10-2
11-3	12-2	13-2	14-3	15-3	16-4	17-1	18-4	19-4	20-4
21-3	22-3	23-4	24-1						

Practice Exercise 3									
1-1	2-2	3-3	4-3	5-2	6-2	7-3	8-1	9-3	10-2
11-1	12-4	13-3	14-1	15-1	16-2	17-2	18-1	19-2	20-4
21-4	22-1	23-2	24-3	25-1					

Practice Exercise 4									
1-2	2-4	3-4	4-1	5-4	6-4	7-2	8-1	9-4	10-2
11-3	12-3	13-1	14-2	15-3	16-3	17-2	18-3	19-1	20-3
21-3	22-4	23-1	24-2						

Practice Exercise 5									
1-1	2-1	3-4	4-1	5-1	6-4	7-3	8-1	9-1	10-2
11-1	12-4	13-2	14-2	15-4	16-3	17-2	18-1	19-1	20-2

CHAPTER VA 2.2

Practice Exercise 1

Table 1: I − c, II − b, III − d, IV − a
Table 2: I − b, II − c, III − d, IV − a
Table 3: I − b, II − a, III − d, IV − c
Table 4: I − a, II − d, III − c, IV − b
Table 5: I − d, II − c, III − b, IV − a

Cross word

Across Words:	**Down Words:**
3. Aggregate	1. Jam
8. Naive	2. Din
10. Novel	4. Assess
11. Invalid	5. Desiccate
13. Lucid	6. Savvy
16. Concise	7. Confined
17. Refuge	9. Bolster
18. Exacting	12. Monotony
21. Relic	13. Linger
22. Censure	14. Handicap
23. Aspire	15. Intimate
24. Superficial	19. Awe
28. Peripheral	20. Mediate
29. Shield	25. Epic
	26. Win
	27. Waver

Practice Exercise 2

(Refer to the explanation for answers to the word search puzzle)

1-Principal   2-Poring   3-Pedal   4-Loathe   5-Lie   6-Further   7-Hoard   8-Uninterested
9-Expected   10-Adverse

Table 1: I − b, II − c, III − d, IV − a, V − e
Table 2: I − e, II − d, III − c, IV − b, V − a

CHAPTER VA 2.3

Practice Exercise 1

1-3	2-3	3-3	4-1	5-1	6-4	7-2	8-1	9-1	10-2
11-3	12-1	13-3	14-1	15-3	16-3	17-4	18-1	19-1	20-1

Practice Exercise 2

1-4	2-1	3-2	4-3	5-1	6-3	7-4	8-4	9-1	10-2
11-3	12-2	13-1	14-4	15-4	16-2	17-1	18-4	19-3	20-4
21-3	22-2	23-3	24-4	25-2	26-1				

Practice Exercise 3

1-3	2-3	3-2	4-3	5-4	6-3	7-1	8-2	9-3	10-4
11-1	12-2	13-4	14-3	15-4	16-2	17-4	18-2	19-2	20-2
21-4	22-4	23-4							

Practice Exercise 4

1-3	2-1	3-3	4-4	5-4	6-2	7-4	8-4	9-4	10-2
11-3	12-4	13-1	14-2	15-1	16-3	17-1	18-2	19-1	20-1
21-3	22-1	23-3							

Practice Exercise 5

1-1	2-4	3-3	4-4	5-3	6-3	7-2	8-3	9-2	10-4
11-3	12-4	13-2	14-4	15-3	16-4	17-3	18-2		

CHAPTER VA 2.4

Practice Exercise 1

1-2	2-2	3-3	4-2	5-3	6-4	7-2	8-1	9-4	10-3
11-2	12-2	13-4	14-1	15-4	16-2	17-1	18-4	19-4	20-1
21-2	22-4	23-1	24-1	25-4					

Practice Exercise 2

1-1	2-2	3-3	4-1	5-4	6-4	7-1	8-4	9-2	10-4
11-1	12-3	13-3	14-3	15-2	16-1	17-1	18-2	19-3	20-2
21-1	22-3	23-3	24-3	25-4	26-4				

CHAPTER VA 2.5

Practice Exercise 1

1-2	2-2	3-3	4-1	5-4	6-4	7-3	8-1	9-4	10-2
11-1	12-4	13-2	14-3	15-1	16-3	17-2	18-4	19-1	20-3
21-1	22-1	23-4	24-3	25-1	26-4	27-3	28-2	29-4	30-3

Practice Exercise 2

1-3	2-3	3-1	4-3	5-4	6-4	7-2	8-2	9-1	10-4
11-3	12-3	13-3	14-4	15-2	16-4	17-4	18-1	19-2	20-4
21-4	22-3	23-1	24-3	25-4	26-2	27-3	28-2	29-4	30-1

CHAPTER VA 2.6

Practice Exercise 1

1-3	2-4	3-4	4-1	5-2	6-1	7-4	8-3	9-2	10-4
11-2	12-3	13-3	14-3	15-2	16-2	17-1	18-3	19-1	20-1
21-2	22-4	23-2	24-3	25-2	26-1				

Practice Exercise 2

1-1	2-4	3-1	4-3	5-4	6-3	7-4	8-3	9-1	10-4
11-2	12-4	13-3	14-1	15-1	16-1	17-3	18-4	19-1	20-2
21-4	22-2	23-2	24-3	25-4	26-1	27-3	28-4		

Practice Exercise 3

1-4	2-3	3-1	4-3	5-2	6-4	7-1	8-4	9-2	10-4
11-1	12-3	13-2	14-1	15-2	16-1	17-2	18-4	19-1	20-2
21-4	22-4	23-2	24-3	25-3					

Practice Exercise 4

1-2	2-3	3-1	4-4	5-1	6-3	7-2	8-4	9-2	10-4
11-4	12-1	13-4	14-3	15-3	16-1	17-1	18-4	19-3	20-3
21-4	22-4	23-1	24-2	25-2	26-2	27-4	28-2	29-3	