

**Straus Theory Exercises**  
 Ch. 2: III-V (pp. 64-65)

**ANSWERS**

VI. 1. Prime form

	Normal Form	Prime Form
a.	[10, 3, 4]	(016)
b.	[7, 8, 11, 0, 1, 3]	(014568)
c.	[G, B, D]	(037)
d.	[2, 5, 8, 10]	(0258)
e.	[4, 6, 9, 10, 1]	(01469)
f.	[C#, D, G, Ab]	(0167)

VI. 2. Check Appendix 1: *List of Set Classes* (p. 261-64) to see if the given pc set is listed as a prime form. If not, calculate its prime form and look up the Forte name.

	PC Set	In prime form?	Prime form	Forte name	Set Class
a.	(0, 1, 7)	(017)? No	(016)	3-5	3-5 (016)
b.	(0, 2, 8)	(028)? No	(026)	3-8	3-8 (026)
c.	(0, 2, 6, 9)	(0269)? No	(0258)	4-27	4-27 (0258)
d.	(0, 1, 4, 5, 8, 9)	(014589)? Yes	(014589)	6-20	6-20 (014589)

VII. Search Appendix 1 for ic vectors with the given property.

	Property	Note	Set Class(es)	IC Vector
1.	Tetrachordal set classes that contain two occurrences of ic6		4-9 (0167) 4-25 (0167) 4-28 (0369)	200022 020202 004002
2.	Tetrachordal set classes with maximal ic4 property	The max. no. of occurrences of ic4 is 3.	4-19 (0148) 4-24 (0248)	101310 020301
3.	Which trichordal set classes contain both ic1 and ic6		3-5 (016)	100011
4.	There are two so-called <i>all interval tetrachords</i>		4-Z15 (0146) 4-Z29 (0137)	111111 111111
5.	How many trichordal and nonochordal set classes are there? Why are these numbers the same?	12. Complement relation.		

VII. (CONT.)

	<b>Property</b>	<b>Note</b>	<b>Set Class(es)</b>	<b>IC Vector</b>
6.	Which hexachordal set classes have no occurrences of some interval?		6-1 (012345) 6-7 (012678) 6-8 (023457) 6-14 (013458) 6-20 (014589) 6-32 (024579) 6-35 (02468T)	54321 <u>0</u> 42 <u>0</u> 243 34323 <u>0</u> 32343 <u>0</u> 3 <u>0</u> 363 <u>0</u> 14325 <u>0</u> <u>0</u> 6 <u>0</u> 6 <u>0</u> 3
7.	Which hexachordal set classes have an ic entry with a maximal 6 occurrences of some interval?  5 occurrences?		6-1 (012345) 6-20 (014589) 6-27 (013469) 6-32 (024579) 6-35 (02468T)	<u>5</u> 43210 303 <u>6</u> 30 22 <u>5</u> 222 1432 <u>5</u> 0 <u>0</u> 6 <u>0</u> 6 <u>0</u> 3
8.	Which set classes contain only one kind of ic?		2-1 (01) 2-1 (02) 2-1 (03) 2-1 (04) 2-1 (05) 2-1 (06) 3-12 (048)	100000 010000 001000 000100 000010 000001 000300