

Exercise Conversion Guide
for
Big Java, 3rd Edition
Java Concepts, 5th Edition
by Cay Horstmann

For each exercise in the new edition, this document shows where the exercise was located in the 2nd or 4th editions. Annotations also indicate:

- N New
- E Expanded (to include additional tasks or constrained by additional information, such as class names to be used)
- R Revised
- W Enhanced with additional specification in the WileyPLUS version of the exercise. In WileyPLUS, the exercise appears as it does in the printed text, followed by more information to constrain the solution. This additional specification may include class names to be used, sample output, screen shots of sample output, starter code to be completed, and/or tester and other classes to be used in the student solution.
- G Relevant to Graphics track material
- T Relevant to Testing track

ExerciseConversion.xls: CH02

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R2. 1		R2. 1			
R2. 2		R2. 2			
R2. 3		R2. 3			
R2. 4		R2. 4			
R2. 5		R2. 5			
R2. 6		R4. 10			
R2. 7		R2. 6			
R2. 8		R2. 7			
R2. 9		R2. 8			
R2. 10		R2. 9			
R2. 11		R2. 10			
R2. 12		R2. 11			
R2. 13		R2. 12			
R2. 14		R5. 1			G
R2. 15		R5. 2			G
R2. 16		R5. 3			G
R2. 17		R5. 4			G
R2. 18		R5. 5			G
R2. 19		R5. 7			G
P2. 1		P2. 1		R	T
P2. 2		P2. 2		R	T
P2. 3		P2. 3		R	
P2. 4		P2. 4		R	
P2. 5		P2. 5		R	
P2. 6		P2. 6			
P2. 7		P2. 7			
P2. 8		P2. 8			
P2. 9		P2. 9			T
P2. 10		P2. 10			
P2. 11		P5. 1		W	G
P2. 12		P5. 3		W	G
P2. 13		P5. 5		W	G
P2. 14		P5. 7		W	G
P2. 15		P5. 10		W	G
Project 2. 1		Project 2. 1			
Project 2. 2		Project 2. 2			G

ExerciseConversion.xls: CH03

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R3. 1	R3. 3		
R3. 2	R3. 4		
R3. 3	R3. 5		
R3. 4	R3. 6	R	
R3. 5	R3. 7	R	
R3. 6	R3. 8		
R3. 7	R3. 9		
R3. 8	R3. 10		
R3. 9	R3. 11	R	
R3. 10	R3. 12		
R3. 11	R3. 1		
R3. 12	R3. 2		
R3. 13		N	G
R3. 14		N	G
R3. 15		N	G
P3. 1	P3. 1	R	
P3. 2	P3. 2	R	
P3. 3	P3. 3	R	
P3. 4	P3. 4, 3.5	E	
P3. 5	P3. 6	R	
P3. 6	P3. 7	R, W	
P3. 7	P3. 8	R,W	
P3. 8		N	
P3. 9		N	
P3. 10		N	
P3. 11	P3. 12	R, E, W	
P3. 12	P3. 14	W	
P3. 13	P5. 6	R, W	G
P3. 14	P5. 8	W	G
P3. 15	P5. 9	R, W	G
P3. 16	P5. 15	R, W	G
P3. 17	P5. 16	R, W	G
P3. 18	P5. 11	W	G
P3. 19	P5. 14	R, W	G
P3. 20	P5. 12	R, W	G
Project 3. 1	Project 3. 1		
Project 3. 2	Project 3. 2		

ExerciseConversion.xls: CH04

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R4. 1		R4. 1			
R4. 2		R4. 2			
R4. 3		R4. 3			
R4. 4		R4. 4		R	
R4. 5		R4. 4		R	
R4. 6		R4. 5			
R4. 7		R4. 6			
R4. 8		R4. 7			
R4. 9		R4. 8			
R4. 10		R4. 9			
R4. 11		R4. 11			
R4. 12		R4. 12			
R4. 13		R4. 13			
R4. 14		R4. 14			
R4. 15		R4. 15			
R4. 16		R4. 16			
P4. 1		P4. 1		R, W	
P4. 2		P4. 2		W	
P4. 3				N, W	
P4. 4		P4. 4		R	
P4. 5		P4. 5		R	
P4. 6		P4. 6		R	
P4. 7		P4. 7		R	
P4. 8		P4. 10		R, W	
P4. 9		P4. 9			
P4. 10				N	
P4. 11		P4. 11		R	
P4. 12		P4. 12		R	
P4. 13		P4. 13			
P4. 14		P4. 14			
P4. 15		P4. 15			
P4. 16		P4. 16		R	
P4. 17		P4. 17		R	
P4. 18		P4. 18			
Project 4. 1		Project 4. 1			
Project 4. 2		Project 4. 2			

ExerciseConversion.xls: CH06

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R6. 1		R7. 1			
R6. 2		R7. 2			
R6. 3		R7. 3			
R6. 4		R7. 4			
R6. 5		R7. 5			
R6. 6		R7. 6			
R6. 7		R7. 7		R	
R6. 8		R7. 8		R	
R6. 9		R7. 9			
R6. 10		R7. 10			
R6. 11		R7. 11			
R6. 12		R7. 12			
R6. 13		R7. 13			
R6. 14		R10. 7			T
R6. 15		R10. 9			T
R6. 16		R10. 8		R	T
R6. 17		R10. 10			T
R6. 18		R10. 11			T
P6. 1		P7. 1		R, W	
P6. 2		P7. 3		W	
P6. 3				N, W	
P6. 4		P7. 5		E, W	
P6. 5		P7. 6		W	
P6. 6		P7. 10		R, E, W	
P6. 7		P7. 11		W	
P6. 8		P7. 12		R, W	
P6. 9		P7. 13		W	
P6. 10		P7. 14		R, W	
P6. 11		P7. 15		R	
P6. 12		P7. 16		W	
P6. 13		P7. 2		W	G
P6. 14		P7. 4		R, W	G
P6. 15		P7. 7		R, W	G
P6. 16		P7. 8		W	G
P6. 17		P7. 9		W	G
P6. 18		P7. 17		R, W	G
P6. 19		P7. 18		R, W	G
Project 6. 1		Project 7. 1			
Project 6. 2		Project 7. 2			

ExerciseConversion.xls: CH07

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R7. 1	R8. 1		
R7. 2	R8. 2		
R7. 3	R8. 3		
R7. 4	R8. 4		
R7. 5	R8. 5		
R7. 6	R8. 6		
R7. 7	R8. 7		
R7. 8	R8. 8		
R7. 9	R8. 9		
R7. 10	R8. 10		T
R7. 11	R8. 11		
R7. 12	R8. 12		
R7. 13	R8. 13		
R7. 14	R8. 14		
R7. 15	R8. 15		
R7. 16	R8. 16		
R7. 17	R8. 17		
R7. 18	R8. 18		
R7. 19	R10. 3		T
R7. 20	R10. 4		T
P7. 1	P8. 1	W	
P7. 2	P8. 2	W	
P7. 3	P8. 3	W	
P7. 4	P8. 4	W	
P7. 5	P8. 5	W	
P7. 6	P8. 6	W	
P7. 7	P8. 9	R, W	
P7. 8	P8. 10	W	
P7. 9	P8. 11	W	
P7. 10	P8. 16	W	
P7. 11	P8. 17	R, W	
P7. 12	P8. 18	W	
P7. 13	P8. 19	W	
P7. 14	P8. 7	W	G
P7. 15	P8. 8	W	G
P7. 16	P8. 12	W	G
P7. 17	P8. 13	W	G
P7. 18	P8. 14	W	G
P7. 19	P8. 15	W	G
Project 7. 1	Project 8. 1		
Project 7. 2	Project 8. 2		

ExerciseConversion.xls: CH08

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R8. 1	R9. 1		
R8. 2	R9. 2		
R8. 3	R9. 3		
R8. 4	R9. 4		
R8. 5	R9. 5		
R8. 6	R9. 6		
R8. 7	R9. 7		
R8. 8	R9. 8		
R8. 9	R9. 9		
R8. 10	R9. 10		
R8. 11	R9. 11		
R8. 12	R9. 12		
R8. 13	R9. 13		
R8. 14	R9. 14		T
R8. 15	R9. 15		
R8. 16	R9. 16		
R8. 17	R9. 17		
R8. 18	R9. 18		
R8. 19	R9. 19		
R8. 20	R9. 20		
R8. 21	R9. 21		
R8. 22	R9. 22		
R8. 23	R9. 23		
R8. 24	R9. 24	R	
R8. 25	R9. 25		
R8. 26	R9. 26		
R8. 27	R9. 27		
R8. 28	R9. 28		
R8. 29	R9. 29		
R8. 30	R9. 30		
R8. 31	R9. 31	R	
R8. 32	R9. 32		
R8. 33		N	T
P8. 1	P9. 1	W	
P8. 2	P9. 2	W	
P8. 3	P9. 3	W	
P8. 4	P9. 4		
P8. 5	P9. 5	R, W	
P8. 6	P9. 6	W	
P8. 7	P9. 7	R, W	
P8. 8	P9. 8	R, W	
P8. 9	P9. 9	R, W	
P8. 10	P9. 10	R, W	
P8. 11	P9. 13	W	
P8. 12	P9. 14		
P8. 13	P9. 15		

ExerciseConversion.xls: CH08

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
P8. 14		P9. 16		R	
P8. 15				N	T
P8. 16				N	T
P8. 17		P9. 11		W	G
P8. 18		P9. 12		W	G
Project 8. 1		Project 9. 1			
Project 8. 2		Project 9. 2			

ExerciseConversion.xls: CH09

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R9. 1	R11. 1		
R9. 2	R11. 2	R	
R9. 3	R11. 3	R	
R9. 4	R11. 4		
R9. 5	R11. 5		
R9. 6	R11. 6		
R9. 7	R11. 7		
R9. 8	R11. 8		
R9. 9	R11. 9		
R9. 10	R11. 10		
R9. 11	R11. 12	R	
R9. 12	R11. 13		
R9. 13	R11. 16		
R9. 14	R11. 17		
R9. 15		N	G
R9. 16	R12. 1	R	G
R9. 17	R12. 2		G
R9. 18	R12. 3		G
R9. 19	R12. 4		G
R9. 20	R12. 5		G
R9. 21	R12. 6		G
R9. 22	R12. 7		G
R9. 23	R12. 8		G
R9. 24	R12. 10		G
P9. 1	P11. 1	W	
P9. 2	P11. 2	W	
P9. 3	P11. 3	R, W	
P9. 4	P11. 4	W	
P9. 5	P11. 5	W	
P9. 6	P11. 6	W	
P9. 7	P11. 7	W	
P9. 8	P11. 8	W	
P9. 9	P11. 9	W	
P9. 10	P11. 10	W	
P9. 11	P11. 17	W	
P9. 12	P11. 18	W	
P9. 13	P11. 12	W	G
P9. 14	P12. 1	R, W	G
P9. 15	P12. 2	R, W	G
P9. 16	P12. 3	R, W	G
P9. 17	P12. 4	R, W	G
P9. 18	P12. 5	R, W	G
P9. 19	P12. 6	R, W	G
P9. 20		N, W	G
P9. 21		N, W	G
P9. 22		N, W	G

ExerciseConversion.xls: CH09

New Edition		Prior Edition		New/Revised/		
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing	
P9. 23				N, W	G	
P9. 24				N, W	G	
P9. 25				N, W	G	
P9. 26		P12. 7		W	G	
Project 9. 1		Project 11. 1				
Project 9. 2		Project 11. 2				

ExerciseConversion.xls: CH10

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R10. 1		R13. 1			
R10. 2		R13. 2			
R10. 3		R13. 3			
R10. 4		R13. 4			
R10. 5		R13. 5			
R10. 6		R13. 6			
R10. 7		R13. 7			
R10. 8		R13. 8			
R10. 9		R13. 9			
R10. 10		R13. 10			
R10. 11		R13. 11			
R10. 12		R13. 12			
R10. 13		R13. 13			
R10. 14		R13. 14			
R10. 15		R13. 15			
R10. 16		R13. 16			
R10. 17		R13. 17			
R10. 18		R12. 9		R	G
R10. 19				N	G
P10. 1		P13. 1		W	
P10. 2		P13. 2		W	
P10. 3		P13. 3		W	
P10. 4		P13. 4		W	
P10. 5		P13. 5		W	
P10. 6		P13. 6		W	
P10. 7		P13. 8		W	
P10. 8		P13. 7		R, W	G
P10. 9		P12. 8		W	G
P10. 10		P12. 9		W	G
P10. 11		P12. 10		W	G
P10. 12		P14. 10		W	G
P10. 13		P14. 11		W	G
P10. 14		P14. 12		R, W	G
P10. 15		P12. 11		W	G
P10. 16		P12. 12		W	G
P10. 17		P12. 13		W	G
P10. 18		P12. 14		W	G
P10. 19		P12. 18		W	G
P10. 20		P12. 19		W	G
Project 9. 1		Project 13. 1			
Project 9. 2		Project 13. 2			

ExerciseConversion.xls: Ch11

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R11. 1	R16. 4		
R11. 2	R16. 5		
R11. 3	R16. 6		
R11. 4	R16. 8		
R11. 5	R16. 9		
R11. 6	R16. 10		
R11. 7	R15. 1		
R11. 8	R15. 2		
R11. 9	R15. 3		
R11. 10	R15. 4		T
R11. 11	R15. 5		
R11. 12	R15. 6		
R11. 13	R15. 7		
R11. 14	R15. 8	R	
R11. 15	R15. 9		
R11. 16	R15. 10		
R11. 17	R15. 11		
R11. 18	R15. 12		
R11. 19	R15. 13		T
R11. 20	R15. 14		T
P11. 1		N, W	
P11. 2	P16. 1	R, W	
P11. 3	P16. 6	W	
P11. 4	P16. 7	W	
P11. 5	P16. 8	R, W	
P11. 6	P16. 9	W	
P11. 7	P16. 10	R	
P11. 8	P16. 11	R	
P11. 9	P15. 1		
P11. 10	P15. 2		
P11. 11	P15. 3	R, W	
P11. 12	P15. 4	W	
P11. 13	P15. 6		
P11. 14	P15. 7	W	
P11. 15	P15. 8	W	
Project 11. 1	Project 15. 1		

ExerciseConversion.xls: CH12

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R12. 1		R17. 1			
R12. 2		R17. 2			
R12. 3		R17. 3			
R12. 4		R17. 4			
R12. 5		R17. 5			
R12. 6		R17. 6			
R12. 7		R17. 7		R	
R12. 8		R17. 8			
R12. 9		R17. 9			
R12. 10		R17. 10			
R12. 11		R17. 11			
R12. 12		R17. 13			
R12. 13		R17. 14			
R12. 14				N	
P12. 1		P17. 1		W	
P12. 2		P17. 2			
P12. 3		P17. 3		W	
P12. 4		P17. 5		R, W	
P12. 5		P17. 8		W	
P12. 6		P17. 9		R, W	
P12. 7		P17. 10		R, W	
P12. 8		P17. 11		R, W	
P12. 9		P17. 13		R	
P12. 10		P17.		N, W	
P12. 11		P17. 4		W	G
P12. 12		P17. 7		W	G
P12. 13		P17. 12		R, W	G
Project 12. 1		Project 17. 1			
Project 12. 2		Project 17. 2			

ExerciseConversion.xls: CH13

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R13. 1	R18. 1		
R13. 2	R18. 2		
R13. 3	R18. 3		
R13. 4	R18. 4		
R13. 5	R18. 5		
R13. 6	R18. 6		
R13. 7	R18. 10		
R13. 8	R18. 7		
R13. 9	R18. 8		
R13. 10	R18. 9		
P13. 1	P18. 1		
P13. 2	P18. 2	W	
P13. 3	P18. 3		
P13. 4	P18. 4		
P13. 5	P18. 5		
P13. 6	P18. 6	W	
P13. 7	P18. 7	R	
P13. 8	P18. 8	W	
P13. 9	P18. 9	W	
P13. 10	P18. 10	W	
P13. 11	P18. 11	W	
P13. 12	P18. 12	W	
P13. 13	P18. 13	W	
P13. 14	P18. 14	R, W	
P13. 15	P18. 15	W	G
P13. 16	P18. 16	W	
Project 13. 1	Project 18. 1		
Project 13. 2	Project 18. 2		G

ExerciseConversion.xls: CH14

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R14. 1		R19. 1			
R14. 2		R19. 2			
R14. 3		R19. 3			
R14. 4		R19. 4			
R14. 5		R19. 5			
R14. 6		R19. 6			
R14. 7		R19. 7			
R14. 8		R19. 8			
R14. 9		R19. 9			
R14. 10		R19. 10			
R14. 11		R19. 11			
R14. 12		R19. 12		R	
R14. 13		R19. 13			
R14. 14		R19. 14		R	
P14. 1		P19. 1		W	
P14. 2		P19. 2		W	
P14. 3		P19. 3		W	
P14. 4		P19. 4		W	
P14. 5		P19. 5		W	
P14. 6		P19. 6		W	
P14. 7		P19. 7		R, W	
P14. 8		P19. 8		W	
P14. 9		P19. 9		W	
P14. 10		P19. 10		W	
P14. 11		P19. 11		R, W	
P14. 12		P19. 12		W	
P14. 13		P19. 13		W	
P14. 14		P19. 14		W	
Project 14. 1		Project 19. 1			
Project 14. 2		Project 19. 2			G

ExerciseConversion.xls: CH15

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R15. 1		R20. 1			
R15. 2		R20. 2			
R15. 3		R20. 3			
R15. 4		R20. 4			
R15. 5		R20. 5			
R15. 6		R20. 6			
R15. 7		R20. 7			
R15. 8		R20. 8			
R15. 9		R20. 9			
R15. 10		R20. 10			
R15. 11		R20. 11			
R15. 12		R20. 12			
P15. 1		P20. 1		W	
P15. 2		P20. 2		W	
P15. 3		P20. 3		W	
P15. 4		P20. 5		W	
P15. 5		P20. 6		W	
P15. 6		P20. 7		R, W	
P15. 7		P20. 8		W	
P15. 8		P20. 9		W	
P15. 9		P20. 10		W	
P15. 10		P20. 11		W	
P15. 11		P20. 12		W	
P15. 12		P20. 13		W	
P15. 13		P20. 14		W	
P15. 14		P20. 15		W	
P15. 15		P20. 16		W	
P15. 16		P20. 4		R, E, W	G
Project 15. 1		Project 20. 1			
Project 15. 2		Project 20. 2			
Project 15. 3		Project 20. 3			

ExerciseConversion.xls: CH16

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R16. 1		R21. 1			
R16. 2		R21. 2			
R16. 3		R21. 3			
R16. 4		R21. 4			
R16. 5		R21. 5		R	
R16. 6		R21. 6			
R16. 7		R21. 7			
R16. 8		R21. 8		R	
R16. 9		R21. 9			
R16. 10		R21. 10			
R16. 11		R21. 11			
R16. 12		R21. 12			
R16. 13		R21. 13			
R16. 14		R21. 14			
R16. 15		R21. 15			
R16. 16		R21. 16			
R16. 17		R21. 17			
R16. 18		R21. 18			
R16. 19		R21. 19			
R16. 20		R21. 20			
P16. 1		P21. 1		W	
P16. 2		P21. 2		W	
P16. 3		P21. 3		W	
P16. 4		P21. 4		W	
P16. 5		P21. 5		W	
P16. 6		P21. 6		W	
P16. 7		P21. 7		W	
P16. 8		P21. 8		W	
P16. 9		P21. 9		R, W	
P16. 10				N, W	
P16. 11		P21. 12		R, W	
P16. 12		P21. 11		R, W	
P16. 13		P21. 13		W	
P16. 14		P21. 14		W	
P16. 15		P21. 15		W	
P16. 16		P21. 16		W	
P16. 17		P21. 17		W	
P16. 18		P21. 18		W	
P16. 19		P21. 19			
P16. 20		P21. 20			
P16. 21		P21. 21		R, W	
Project 16. 1		Project 21. 1			
Project 16. 2		Project 21. 2			
Project 16. 3		Project 21. 3			G

ExerciseConversion.xls: CH17

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R17. 1		R22. 1			
R17. 2		R22. 2			
R17. 3		R22. 3			
R17. 4		R22. 4			
R17. 5		R22. 5			
R17. 6		R22. 6			
R17. 7		R22. 7			
R17. 8		R22. 8			
R17. 9		R22. 9			
R17. 10		R22. 10			
R17. 11		R22. 11			
R17. 12		R22. 12			
R17. 13		R22. 13			
R17. 14		R22. 14			
P17. 1		P22. 1		W	
P17. 2		P22. 2		W	
P17. 3		P22. 3		W	
P17. 4		P22. 4		W	
P17. 5		P22. 5		W	
P17. 6		P22. 6		W	
P17. 7		P22. 7		W	
P17. 8		P22. 8		R, W	
P17. 9		P22. 9		W	
P17. 10		P22. 10		R,W	
P17. 11		P22. 11		W	
P17. 12		P22. 12		W	
P17. 13		P22. 13		W	
Project 17. 1		Project 22. 1			
Project 17. 2		Project 22. 2			

ExerciseConversion.xls: CH18

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R18. 1	R14. 1		G
R18. 2	R14. 2	R	G
R18. 3	R14. 3		G
R18. 4	R14. 4		G
R18. 5	R14. 5		G
R18. 6	R14. 6		G
R18. 7	R14. 7	R	G
R18. 8	R14. 8		G
R18. 9	R14. 9		G
R18. 10	R14. 10		G
R18. 11	R14. 11		G
R18. 12	R14. 12		G
R18. 13	R14. 13		G
R18. 14	R14. 14		G
R18. 15	R14. 15		G
R18. 16	R14. 16		G
R18. 17	R14. 17		G
R18. 18	R14. 18		G
P18. 1	P14. 1	W	G
P18. 2	P14. 2	W	G
P18. 3	P14. 3	W	G
P18. 4	P14. 4	W	G
P18. 5	P14. 5	W	G
P18. 6	P14. 6	W	G
P18. 7	P14. 7	W	G
P18. 8	P14. 8	W	G
P18. 9	P14. 9	W	G
P18. 10	P14. 13	W	G
P18. 11		N, W	G
Project 18. 1	Project 14. 1		G
Project 18. 2	Project 14. 2		G

ExerciseConversion.xls: CH19

New Edition	Prior Edition	New/Revised/	
BJ3/JC5	BJ2/JC4	moreonWeb	Graphics/Testing
R19. 1	R16. 1		
R19. 2	R16. 2		
R19. 3	R16. 3		
R19. 4	R16. 7		
R19. 5	R16. 11		
R19. 6	R16. 12	R	
R19. 7	R16. 13		
R19. 8	R16. 14		
R19. 9	R16. 15		
R19. 10	R16. 16		
R19. 11	R16. 17		
P19. 1	P16. 2		
P19. 2	P16. 3	W	
P19. 3	P16. 4		
P19. 4	P16. 5		
P19. 5		N, W	
P19. 6		N, W	
P19. 7		N, W	
P19. 8		N, W	
P19. 9		N, W	
P19. 10	P16. 12	R, W	G
P19. 11		N, W	G
Project 19. 1	Project 16. 1		G
Project 19. 2	Project 16. 2		

ExerciseConversion.xls: CH20

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R20. 1		R23. 1			
R20. 2		R23. 2			
R20. 3		R23. 3			
R20. 4		R23. 4			
R20. 5		R23. 5			
R20. 6		R23. 6			
R20. 7		R23. 7			
R20. 8		R23. 8			
R20. 9		R23. 9			
R20. 10		R23. 10			
R20. 11		R23. 11			
P20. 1		P23. 1		W	
P20. 2		P23. 2		W	
P20. 3		P23. 3		W	
P20. 4		P23. 6			
P20. 5		P23. 7			
P20. 6		P23. 9			
P20. 7		P23. 10		R, W	
P20. 8		P23. 4			G
P20. 9		P23. 5			G
P20. 10		P23. 12			G
P20. 11		P23. 14			G
P20. 12		P23. 8			G
P20. 13		P23. 11		R	G
P20. 14		P23. 13			G
Project 20. 1		Project 23. 1			G
Project 20. 2		Project 23. 2			G

ExerciseConversion.xls: CH21

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R21. 1		R24. 1			
R21. 2		R24. 2			
R21. 3		R24. 3			
R21. 4		R24. 4			
R21. 5		R24. 5			
R21. 6		R24. 6			
R21. 7		R24. 7			
R21. 8		R24. 8			
R21. 9		R24. 9			
R21. 10		R24. 10			
R21. 11		R24. 11			
R21. 12		R24. 12			
R21. 13		R24. 13			
P21. 1		P24. 1		W	
P21. 2		P24. 2		W	
P21. 3		P24. 3			
P21. 4		P24. 4			
P21. 5		P24. 5			
P21. 6		P24. 6			
P21. 7		P24. 7		W	
P21. 8		P24. 8			
P21. 9		P24. 9			
P21. 10		P24. 10		W	
Project 21. 1		Project 24. 1			
Project 21. 2		Project 24. 2			

ExerciseConversion.xls: CH22

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R22. 1		R25. 1			
R22. 2		R25. 2			
R22. 3		R25. 3			
R22. 4		R25. 4			
R22. 5		R25. 5			
R22. 6		R25. 6			
R22. 7		R25. 7			
R22. 8		R25. 8			
R22. 9		R25. 9			
R22. 10		R25. 10			
R22. 11		R25. 11			
R22. 12		R25. 12			
R22. 13		R25. 13			
R22. 14		R25. 14			
R22. 15		R25. 15			
R22. 16		R25. 16			
R22. 17		R25. 17			
R22. 18		R25. 18		R	
R22. 19		R25. 19			
R22. 20		R25. 20			
R22. 21		R25. 21			
P22. 1		P25. 1		W	
P22. 2		P25. 2		W	
P22. 3		P25. 3		W	
P22. 4		P25. 4		W	
P22. 5		P25. 5		W	
P22. 6		P25. 6		W	
P22. 7		P25. 7		W	
P22. 8		P25. 8		W	
P22. 9		P25. 9		W	
P22. 10		P25. 10		R, W	
P22. 11		P25. 11			
Project 22. 1		Project 25. 1			
Project 22. 2		Project 25. 2			

ExerciseConversion.xls: CH23

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R23. 1		R26. 1			
R23. 2		R26. 2			
R23. 3		R26. 3			
R23. 4		R26. 4			
R23. 5		R26. 5			
R23. 6		R26. 6			
R23. 7		R26. 7			
R23. 8		R26. 8			
R23. 9		R26. 9			
R23. 10		R26. 10			
R23. 11		R26. 11			
R23. 12		R26. 12		R	
R23. 13		R26. 13			
R23. 14		R26. 14			
R23. 15		R26. 15			
R23. 16		R26. 16			
R23. 17		R26. 17			
R23. 18		R26. 18			
P23. 1		P26. 1		W	
P23. 2		P26. 2		W	
P23. 3		P26. 3		W	
P23. 4		P26. 4		W	
P23. 5		P26. 5		W	
P23. 6		P26. 6		W	
P23. 7		P26. 13		W	
P23. 8		P26. 14		W	
P23. 9		P26. 15		R, E, W	
P23. 10		P26. 16		W	
P23. 11		P26. 17		W	
P23. 12		P26. 7		W	G
P23. 13		P26. 8		W	G
P23. 14		P26. 9		R, W	G
P23. 15		P26. 12		W	G
P23. 16		P26. 10		W	G
P23. 17		P26. 11		W	G
Project 23. 1		Project 26. 1			
Project 23. 2		Project 26. 2			

ExerciseConversion.xls: CH24

New Edition		Prior Edition		New/Revised/	
BJ3/JC5		BJ2/JC4		moreonWeb	Graphics/Testing
R24. 1		R27. 1			
R24. 2		R27. 2			
R24. 3		R27. 3			
R24. 4		R27. 4			
R24. 5		R27. 5			
R24. 6		R27. 6			
R24. 7		R27. 7			
R24. 8		R27. 8			
R24. 9		R27. 9			
R24. 10		R27. 10			
P24. 1		P27. 1		W	
P24. 2		P27. 2		W	
P24. 3		P27. 3		W	
P24. 4		P27. 4		W	
P24. 5		P27. 5		W	
P24. 6		P27. 6		W	
P24. 7		P27. 7		W	
P24. 8		P27. 8		W	
P24. 9		P27. 9		W	
P24. 10		P27. 10		W	
P24. 11		P27. 11		W	
Project 24. 1		Project 27. 1			
Project 24. 2		Project 27. 2			