Differences between the  $6^{th}$  and  $7^{th}$  editions of "Fundamentals of Engineering Thermodynamics" by Moran & Shapiro.

6 <sup>TH</sup> EDITION	7 <sup>TH</sup> EDITION	Difference
5.1	5.1	
5.2	5.2	
5.3	5.3	
5.4	5.4	The 7 <sup>th</sup> edition has several paragraphs on the "Thermal Glider" on pp. 247 – 248. These are absent in the 6 <sup>th</sup> edition.
5.5	5.5	
5.6	5.6	
5.7	5.7	
5.8	5.8	
5.9	5.9	
5.10	5.10	
5.11	5.11	
6.1	6.1	
6.2	6.2	
6.3	6.3	
6.4	6.4	
6.5	6.5	
6.6	6.6	
6.7	6.7	
6.8	6.8	On the top of pg. 306 of the 7 <sup>th</sup> edition there is a section on "Breaking" the Second Law Has Implications for Nanotechnology, while on the top of pg. 281 of the 6 <sup>th</sup> edition there is a paragraph on A New Definition of Entropy.
6.9	6.9	
6.10	6.10	
6.11	6.11	
6.12	6.12	There is a paragraph at the end of this section in the 6 <sup>th</sup> edition on "Energy Star". The 7 <sup>th</sup> edition doesn't have this paragraph.
6.13	6.13	The 6 <sup>th</sup> edition has a paragraph about Coal-fired Power Plants on the top of pg. 307 while the 7 <sup>th</sup> edition has a paragraph "Bats and Wind Turbines" on the top of pg. 331.
8.1	8.1	There are two differences.  First, there is a whole section about "Introducing power

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		generation" from pp. 426 - 430 in the 7 <sup>th</sup> edition that does not appear in the 6 <sup>th</sup> edition.  Second there are three figures and several paragraphs about pressurized-water nuclear vapor
		power plants, concentrating solar thermal vapor power, and geothermal vapor power, from pg. 431 - 433 in the 7 <sup>th</sup> edition that does not appear in the 6 <sup>th</sup> edition.
8.2	8.2	edition.
8.3	8.3	
8.4	8.4	
9.1	9.1	
9.2	9.2	
9.3	9.3	
9.4	9.4	
9.5	9.5	There is a paragraph at the end of this section about Natural Gas that appears on pg. 510 of the 7 <sup>th</sup> edition but not in the 6 <sup>th</sup> edition.
9.6	9.6	
9.7	9.7	
9.8	9.8	There is a subsection 9.8.4 (pp. 535-537) about Ericsson and Stirling Cycles in the 7 <sup>th</sup> edition. This appears in section 9.11 of the 6 <sup>th</sup> edition (pp. 497-499).
9.9	9.11	Section 9.9 in 6 <sup>th</sup> edition on Gas Turbines for Aircraft Propulsion corresponds to section 9.11 in the 7 <sup>th</sup> edition.
9.10	9.9	Section 9.9 in the 7 <sup>th</sup> edition (Gas Turbine-Based Combined Cycles) corresponds to section 9.10 of the 6 <sup>th</sup> edition.
10.1	10.1	
10.2	10.2	There is a paragraph at the end of this section about the p-h

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		diagram. It is on pg. 600 of the
		7 <sup>th</sup> edition. The 6 <sup>th</sup> edition
		doesn't have this paragraph.
10.6	10.6	A heat pump cycle example
10.0	10.0	exists at the end of this section
		on pg. 610 of the 7 <sup>th</sup> edition. The
		6 <sup>th</sup> edition doesn't have this
		example.
10.7	10.7	There is a subsection 10.7.3
		about Automotive Air
		Conditioning Using Carbon
		Dioxide on pp. 617 - 618 of the
		7 <sup>th</sup> edition. The 6 <sup>th</sup> edition
		doesn't have this subsection.
11.1	11.1	
11.4	11.4	
		There is a paragraph about
11.5	11.5	propagation of elastic waves on
		pg. 658 of the 7 <sup>th</sup> edition. The 6 <sup>th</sup>
		edition doesn't have this
		paragraph.
11.7	11.7	
12.1	12.1	
12.2	12.2	
12.3	12.3	There is a table about property
		relations on a mass basis for
		binary ideal gas mixtures on pg. 713 of the 7 <sup>th</sup> edition. The 6 <sup>th</sup>
		edition doesn't have this table.
12.4	12.4	edition doesn't have this table.
	12.4	There is a paragraph about
12.5	12.5	humidity ratio and influenza on
		pg. 730 of the 7 <sup>th</sup> edition. The 6 <sup>th</sup>
		edition doesn't have this
		paragraph.
12.6	12.6	ka. 20. 26
12.7	12.7	
12.8	12.8	
12.9	12.9	
13.1	13.1	There are two differences. One is
		a paragraph about reliance on
		scarce oil supplies on pg. 712 of
		the 6 <sup>th</sup> edition. The 7 <sup>th</sup> edition
		doesn't have this paragraph.
		There is a subsection about
		Energy and Entropy Balances for

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		Reacting Systems on pp. 786 - 787 of the 7 <sup>th</sup> edition. The 6 <sup>th</sup> edition does not have this subsection.
13.2	13.2	The only difference is in the content of example 13.5. In the 6 <sup>th</sup> edition the example is about analyzing a combustion chamber. In the 7 <sup>th</sup> edition the example is about analyzing a gas turbine fueled with methane.
13.3	13.3	
13.4	13.4	There is a subsection on solid oxide fuel cells on pg. 808 of the 7 <sup>th</sup> edition. The 6 <sup>th</sup> edition doesn't have this subsection.
13.5	13.5	
14.1	14.1	
14.2	14.2	
14.3	14.3	There are several paragraphs about greenhouse gases on pg. 864 of the 7 <sup>th</sup> edition. The 6 <sup>th</sup> edition doesn't have this.
14.4	14.4	
14.5	14.5	
14.6	14.6	