

NAME: _____ HW # _____ SCORE: _____

INSTRUCTIONS: Please staple this sheet with your response to the following problem. Unstapled sheets will not be accepted. Be sure to acknowledge any references from books or websites with footnotes.

HW 1: Identify and describe the major item of your favorite sport or hobby. Identify and describe the materials from which this item is made and why the materials were chosen by their designers. For example, if you play hockey, you might choose to describe a stick comprised of a carbon reinforced shaft and a wooden blade. You may also discuss a problem related to the item's use or performance. In doing so, think about how changing materials, changing the way the item is made or designed, or improving its material properties might improve the item's use or performance. This assignment is to "whet your appetite" about what is to come in this course, as we will be learning about material properties, processing, and performance in great detail.

INSTRUCTIONS: Please work the following problems in your text:

HW 2: 2.7, 2.8, 2.9, 2.10 (consult Section 2.4 in your text), 2.12 (consult Equation 2.4, differentiate Equation 2.8, and consult Footnote 3 in your text), 2.13 & 2.14

HW 3: 3.14, 3.16, 3.21, 3.33, 3.41, 3.43, 3.48 & 3.51

HW 4: 4.4, 4.5, 4.23, 4.24, 4.25, 4.27 & 4.28

HW 5: 5.12 & 5.31

HW 6: 6.2, 6.7, 6.15, 6.24, 6.30 & 6.36

HW 7: 7.1, 7.9, 7.13, 7.14 & 7.16

HW 8: 9.5a, b, c, d; 9.19; 9.20; & 9.38

HW 9: 10.11, 10.12, 10.14, 10.15, 10.16, 10.17 & 10.35

HW 10: 6.29/6.38, 7.15 & 9.39

HW 11: 12.2, 12.5 & 12.14

HW 12: 12.38, 12.39, 12.40 & 12.46

HW 13: 16.3, 16.10, 16.11 & 16.28