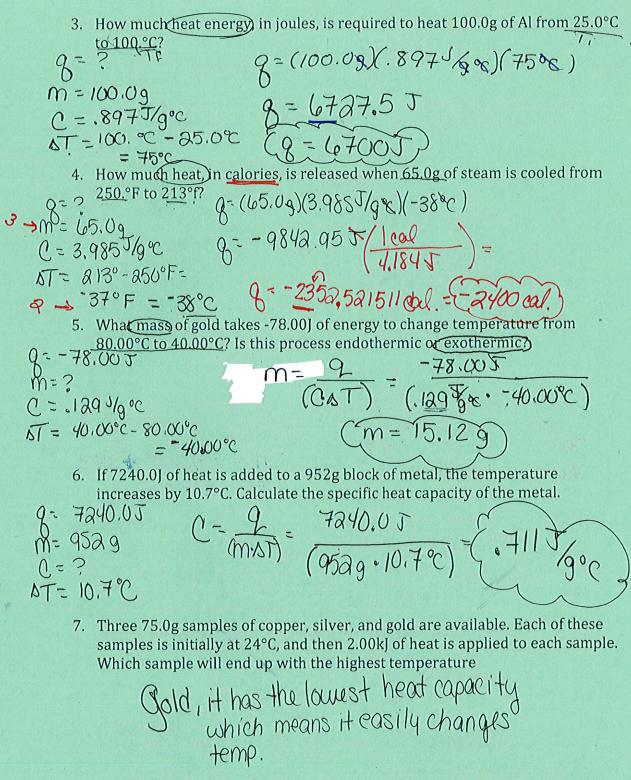
CW/H	W - Heat Problems $q = mC\Delta T$
Name_	Period: 1 2 3
1.	Temperature conversions: a. Convert $70.00^{\circ}$ F to $^{\circ}$ C. $-\frac{70.00^{\circ}}{320^{\circ}}$ F = 1.8 ( $^{\circ}$ C) + $^{\circ}$ 32° $-\frac{70.00^{\circ}}{320^{\circ}}$ F = 1.8 ( $^{\circ}$ C) + $^{\circ}$ C = $^{\circ}$
	$\frac{38.00^{\circ}}{1.8} = \frac{1.8(T_{\circ C})}{1.8}$ b. Convert 100.0°C to °F.
	Top = 1.8(100.0°C) + 32°
	(Top = 212.0°F)
	c. Convert -103.5°C to K. $1K = -103.5 + 273 = \{169.5 K\}$
	ist and
	d. Convert -40.00°F to °C and to (K.)
	-40.00° = 1.8(Toc) +32° > (Toc = -40.00°C)
_	72.00° = 4.8(Toc) 1.8 +8 (Tx = 233.0K)
2.	Practice these conversions:  a. Convert 50.0 calories (cal) to kilocalories (Cal)
	50.0 cal (1 Cal) = .0500 Cal
	b. A fun size Milky Way has 81 kilocalories (Cal). How many calories
	does it have? 1000 cal 81000 cal
	c. A 24oz. bottle of Coca Cola has 291 Cal. How many joules (J) is that?
	29/801 (1000 cal - 29/000 cal (4.1845)



8. Determine the change in temperature when 55.0g of diamond is heated using 240 calories. If the original temperature of the diamond was  $80.55^{\circ}$ C, what is the final temperature? q = 240 col. (4.184) q = 340 col. (4.184) q = 35.0 q = 35.