HW Set 3

2. (a) Compensation: $86 \overset{14}{\curvearrowleft} + 34 = 100 + 20$.
   (b) Any-order *or* commutative
   (c) Additive Identity
   (d) Any-order *or* associative and commutative
   (e) Any-order *or* commutative.

3. (a) $91 + 15 + 9 = (91 + 9) + 15 = 100 + 15 = 15$
   (b) $4+17+32+23+36+20 = (36+4)+(17+23)+20+32 = 40+40+20+32 = 132$
   (c) $75 + 13 + 4 + 25 = (75 + 25) + (13 + 4) = 100 + 17 = 117$
   (d) $28 + 32 + 35 + 7 = (28 + 32) + (35 + 7) = 60 + 42 = 102$.
   (e) $34 + 17 + 6 + 23 = (34 + 6) + (23 + 17) = 40 + 40 = 80$.

4. (a) twice $8 = 16$, (b) twice $20 = 40$, (c) twice $25 = 50$, (d) twice $5 = 10$

5. (1a) $509 \overset{9}{\curvearrowright} + 365 = 500 + 374 = 874$
   (1b) $128 \overset{20}{\curvearrowright} + 280 = 108 + 300 = 408$
   (1c) $384 \overset{16}{\curvearrowleft} + 418 = 400 + 402 = 802$
   (2a) $746 \overset{46}{\curvearrowright} + 254 = 700 + 300 = 1000$
   (2b) $262 \overset{38}{\curvearrowleft} + 138 = 300 + 100 = 400$
   (2c) $432 \overset{32}{\curvearrowright} + 368 = 400 + 400 = 800$.

7. (a) $\leqslant$
   (b) $=$
   (c) $\geqslant$
   (d) $\approx$
   (e) $\neq$

8. (a) "Ryan = \$2" means that Ryan and \$2 are the same. Unless Ryan is a \$2 bill, this is not true. The student perhaps meant "Ryan has \$2" or "Ryan's money: \$2"
   (b) $4.8203 \approx 4.8$
   (c) $(3 + 15) \div 2 + 6 = 18 \div 2 + 6 = 9 + 6 = 15$.