Computer Architecture HW3

1. SIngle: 10111110100000000000000000000000

   Double:
10111111110100000000000000000000000000000000000000000000000000000

2.

   Unsigned: 4165(8) = 2165(10) = 100001110101(2)
              1654(8) = 940(10) = 001110101100(2)
              100001110101 - 001110101100 = 100001110101 + 110001010100 =
010011001001 = 2311(8)
   Signed: 4165(8) = 2165(10) = 100001110101(2) = -117(10)
             1654(8) = 940(10) = 001110101100(2) = 940(10)
              -117 - 940 = -1057(10) = -2041(8)

3. 16 * 5 = 80
4. 167772160, 167772160
5. 8(10) = 1000(2)
   3(10) = 11(2)

	Q	D	R
Init	0000	0011 0000	00001000
1.1	0000	0011 0000	11010000
1.2b	0000	0011 0000	00001000
1.3	0000	0001 1000	00001000
2.1	0000	0001 1000	11110000
2.2b	0000	0001 1000	00001000
2.3	0000	0000 1100	00001000
3.1	0000	0000 1100	11111100
3.2b	0000	0000 1100	00001000
3.3	0000	0000 0110	00001000
4.1	0000	0000 0110	00000010
4.2a	0001	0000 0110	00000010
4.3	0001	0000 0011	00000010
5.1	0001	0000 0011	11111111
5.2b	0010	0000 0011	00000010
5.3	0010	0000 0001	00000010