

Charles Richardson

Midterm - F - 2021

3.

b. $56 = 32 + 16 + 8 \Rightarrow 111000$

$.89 \times 2 = 1.68$

$.68 \times 2 = 1.36$

$.36 \times 2 = 0.72$

$.72 \times 2 = 1.44$

$10 = 8 + 2 = 001010$

$.77 \times 2 = 1.54$

$.54 \times 2 = 1.08$

$.08 \times 2 = 0.16$

$.16 \times 2 = 0$

$111000.1101 \quad 001010.1100$

\downarrow

$1000011.1001 \Rightarrow 67.5675$

4. 177_9 to XXX_7

$$(1 \times 9^2) + (7 \times 9) + 7 = 81 + 63 + 7 = 81 + 70 = 151$$

$$151 / 7 = 21 \text{ r } 4$$
$$21 / 7 = 3 \text{ r } 0 \Rightarrow 177_9 = 304_7$$
$$3 / 7 = 0 \text{ r } 3$$