

task 8

1.)

a.)

$$\begin{array}{r} 611 \overset{1}{\overline{) 116}} = 2 \\ 46 \quad 38 \overset{116}{\overline{) 116}} \\ \underline{131} \quad \underline{32} \quad 2 \\ 128 \quad 6 \\ \underline{93} \end{array}$$

$$611 = 263_{16}$$

c.)

$$\begin{array}{r} 5000 \overset{1}{\overline{) 116}} \\ 46 \quad 312 \overset{116}{\overline{) 116}} \\ \underline{20} \quad \underline{16} \quad 19 \overset{116}{\overline{) 116}} \\ \underline{16} \quad \underline{152} \quad \underline{16} \quad 1 \\ 40 \quad 144 \quad 3 \\ 8 \quad 8 \end{array}$$

$$5000 = 1309_{16}$$

b.)

$$\begin{array}{r} 48 \overset{116}{\overline{) 116}} \\ 48 \quad 3 \\ \underline{0} \end{array}$$

$$48 = 30_{16}$$

d.)

$$\begin{array}{r} 6199 \overset{1}{\overline{) 116}} \\ 48 \quad 387 \overset{116}{\overline{) 116}} \\ \underline{139} \quad \underline{32} \quad 24 \overset{116}{\overline{) 116}} \\ \underline{128} \quad \underline{87} \quad \underline{16} \quad 1 \\ 119 \quad 64 \quad 8 \\ \underline{112} \quad \underline{3} \end{array}$$

$$6199 = 1837_{16}$$

2.)

a.) 500_8

$$5 \times 8^2 = 4^2 = 320$$

$$0 \times 8^1 = 0^1 = 0$$

$$0 \times 8^0 = 0^0 = 0$$

$$\underline{320}_{10}$$

b.) 485_8

$$4 \times 8^2 = 256$$

$$8 \times 8^1 = 64$$

$$5 \times 8^0 = 5$$

$$\underline{325}_{10}$$

c.) 5445_8

$$5 \times 8^3 = 2560$$

$$4 \times 8^2 = 256$$

$$4 \times 8^1 = 32$$

$$5 \times 8^0 = 5$$

$$\underline{2853}_{10}$$

d.) 277_8

$$2 \times 8^2 = 128$$

$$7 \times 8^1 = 56$$

$$7 \times 8^0 = 7$$

$$\underline{191}_{10}$$

3.)

a) $75202,53 + 0,009997$

$$0,7520253 \times 10^2 + 0,009997 \times 10^2$$

$$0,17517 \times 10^1 = 1,7517$$

b) $533,075 - 38,611,007$

$$0,533075 \times 10^3 - 0,38611007 \times 10^5$$

$$0,533075 - 0,000000000038611$$

$$= 0,5330749961 \times 10^3$$

c.)

$$0,38654 \times 0,00012097$$

$$0,38654 \times 0,12097 \times 10^{-3}$$

$$0,046759 \times 10^{-3}$$

$$0,46759 \times 10^{-2}$$

d) $37,86093 \div 0,000103862$

$$0,3786093 \times 10^2 \div 0,103862 \times 10^{-3}$$

$$3,64531 \times 10^{-5}$$

$$= 0,364531 \times 10^{-6}$$