

3.75

.625

- 4.375

~~1.000~~

~~1.001~~

1.001111

0.101110

1.1111.101

5.75

1.011

7.125

0.010.101

-2.625

1.101.011

7.125

1.101011

5.75

0.101110

1.375

0.111.101

7.625

1. $9_{10} + 6_{10}$

19_{10}

$61011011_{V2Q2} + 611000110_{V8Q2} =$

6100100001_{V9Q2}

(d 289)

256

33

289

2. $11_8 - 11_{10}$

$9_{10} - 11_{10}$

$61001_{V4Q2} - 61011_{V4Q2}$

$01001_{I5Q2} + 10101_{I5Q2} =$

11110 $I5Q2$

-2₁₀

3. $12.3125_{10} + 0.110_{I2Q2}$

$1100.0101_{V4Q4} + 0.110_{I2Q2} =$

1101.1101 $V4Q4$

(d 13.8125)

4. $5.75_{10} - 7.125_{10}$

$10111_{V3Q2} - 111001_{V3Q3}$

$0101110_{I4Q3} + 1000111_{I4Q3} =$

110101 $I4Q3$

-1.375₁₀

$$5. \quad 9_{10} \cdot 3_{10}$$

$$1001_{V4Q0} \cdot 11_{V2Q0}$$

$$11011_{V5Q0}$$

$$\boxed{27_{10}}$$

$$6. \quad (-5)_{10} \cdot (-6)_{10}$$

$$-101_{V3Q0} \cdot -110_{V3Q0}$$

$$111011_{I6Q0} \cdot 111010_{I6Q0}$$

$$\begin{array}{r} 111011 \\ 111010 \\ \hline 1111110110 \\ 11111011000 \\ 11110110000 \\ 11101100000 \\ \hline 011110 \end{array}$$

$$011110_{I6Q0}$$

$$\boxed{30_{10}}$$

$$7. \quad 4.5_{10} \cdot 2.625_{10}$$

$$10011_{V4Q1} \cdot 10101_{V2Q3}$$

$$10101$$

$$\cdot 1001100$$

$$10101$$

$$10101$$

$$10101$$

$$\hline 11000111100_{V5Q6}$$

$$11000111_{V5Q4}$$

$$\boxed{24.9375_{10}}$$

$$8. \quad (-1.25)_{10} \cdot 3.5_{10}$$

$$-101_{V1Q2} \cdot 111_{V2Q1}$$

$$11011_{I3Q2} \cdot 0111_{I3Q1}$$

$$\begin{array}{r} 11011_{I3Q2} \\ \times 0111_{I3Q2} \\ \hline 1111110110 \\ 11111011 \\ 1111011 \end{array}$$

$$\begin{array}{r} 101111010_{I5Q0} \\ 1010111010_{I6Q4} \\ 1010111010_{I6Q4} \\ \hline 1101110110 \end{array}$$

$$101110111010_{I6Q4}$$

$$-0001000110_{V6Q4}$$

$$\boxed{-4.375_{10}}$$

$$e_1 = -5.6875_{10}$$

$$s = 1$$

$$ex = 4 + 127 = 131$$

$$fraction = .6875/4$$

$$= 171875$$

$$b | 1000001100101100...$$

$$\boxed{hc1960000}$$

$$\begin{array}{r} 171875 \\ -125 \\ \hline 046875 \\ -03125 \\ \hline 015625 \end{array}$$

$$e_2 = 0x44 f_c 2006$$

$$\cancel{12800}$$

$$60100010011111000010...$$

$$sign = 0$$

$$ex = 1610001001 = d137$$

$$\begin{array}{r} .0009765625 \\ 32 \times .23125 \end{array}$$

$$fraction = 6111100001 \leq d$$

$$258$$

$$= .5 + .25 + .125 + .0625 + .03125 +$$

$$245$$

$$.0009765625$$

$$224$$

$$.5$$

$$210$$

$$251$$

$$142$$

$$1251$$

$$120$$

$$0625$$

$$160$$

$$63125$$

$$200$$

$$0009765625$$

$$142$$

$$.9647265625$$

$$80$$

$$64$$

$$160$$

$$1$$

$$11.9647265625 \cdot 2^{10}$$

$$= \boxed{d2017}$$