(c)

```
x+y    1001
      +1111
      11000
```

```
x×y    1001
      ×1111
       1001
       1001
       1001
       1001
      10000111
```

```
x-y    1001
      -1111
       0110 --> -0110(x<y)
```

```
x/y    1001
      -1111
       1001 < 1111  q₁=0;do not subtract
       1001 ← remainder
       0    ← quotient
```

(d)

```
x+y    110.11
      + 10.11
      1001.10
```

```
x×y     110.11
      x  10.11
        11011
        11011
        00000
       1101 1
      10010.10 01
```

```
x/y    110.11
        10.11
       1101 > 1011  q₁=1; subtract
     - 101 1
       0101 < 1011  q₂=0; do not subtract
        10 11
        1 010
       1010 < 1011  q₃=0;          "
      - 1 011
      1 0100
      10100 > 1011  q₄=1; subtract
     -  1011
        1001
      0.1001 ← remainder
      10.01  ← quotient
```

1.5 (e)

```
x+y    1110.101
      + 1011.100
      11010.001
```

```
x-y    1110.101
      - 1011.100
       0011.001
```

```
x×y      1110.101
      x  1011.100
         1110101
         1110101
         1110101
         0000000
         1110101
         0000 00
        00000 0
        1110101
      10100110001 100
```

```
x/y     1110.101
      - 1011.100
        1110101 > 1011100  q₁=1; subtract
      - 1011 100
        011 0010
        0110010 < 1011100  q₂=0; do not subtract
        11 0100
        1100100 > 1011100  q₃=1; subtract
      - 1011 100
        0 010000
        0010000 < 1011100  q₄=0; do not subtract
        10 11100
        0 010000
      1.010 ← quotient
      0.010 ← remainder
```

(f)

```
x+y     1011.00
      + 1100.00
      10111.00
```

```
x-y     1100.00
      - 1011.00
       0001.00
      =-0001.00(X<Y)
```

```
x×y       1011.00
      x   1100.00
          101100
          101100
       10110000.00
      10000100.00
```

```
x/y     1011.00
      - 1100.00
        101100 < 110000  q₁=0; do not subtract
        110000
        1011000 > 110000  q₂=1; subtract
      - 110 000
        101 0000
        1010000 > 110000  q₃=1; subtract
      - 11 0000
        10 0000
      10.00 ← remainder
      0.11  ← quotient
```