
Pontifícia Universidade Católica do Rio Grande do Sul
FACIN - FENG - Curso de Engenharia da Computação
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Conversão de Bases - Exercícios

1. Bases Quaisquer

- | | | |
|--|---|---|
| 1. $(27)_{10} = (\underline{\quad})_3$ | 5. $(FF)_{16} = (\underline{\quad})_4$ | 9. $(71)_{10} = (\underline{\quad})_2$ |
| 2. $(24)_5 = (\underline{\quad})_{10}$ | 6. $(174)_{10} = (\underline{\quad})_7$ | 10. $(83)_{10} = (\underline{\quad})_{16}$ |
| 3. $(90)_{10} = (\underline{\quad})_6$ | 7. $(361)_9 = (\underline{\quad})_{10}$ | 11. $(12)_8 = (\underline{\quad})_{16}$ |
| 4. $(1111)_2 = (\underline{\quad})_4$ | 8. $(1A)_{12} = (\underline{\quad})_{10}$ | 12. $(123321)_4 = (\underline{\quad})_{16}$ |

2. Binário para Decimal

- | | | |
|---|---|--|
| 1. $(100011)_2 = (\underline{\quad})_{10}$ | 5. $(11000000)_2 = (\underline{\quad})_{10}$ | 9. $(1000101)_2 = (\underline{\quad})_{10}$ |
| 2. $(110011)_2 = (\underline{\quad})_{10}$ | 6. $(10101000)_2 = (\underline{\quad})_{10}$ | 10. $(100000)_2 = (\underline{\quad})_{10}$ |
| 3. $(10000000000)_2 = (\underline{\quad})_{10}$ | 7. $(10101010101)_2 = (\underline{\quad})_{10}$ | 11. $(1010001)_2 = (\underline{\quad})_{10}$ |
| 4. $(1110001111)_2 = (\underline{\quad})_{10}$ | 8. $(101010)_2 = (\underline{\quad})_{10}$ | 12. $(1100)_2 = (\underline{\quad})_{10}$ |

3. Decimal para Binário

- | | | |
|---|--|--|
| 1. $(555)_{10} = (\underline{\quad})_2$ | 5. $(386)_{10} = (\underline{\quad})_2$ | 9. $(36)_{10} = (\underline{\quad})_2$ |
| 2. $(128)_{10} = (\underline{\quad})_2$ | 6. $(753)_{10} = (\underline{\quad})_2$ | 10. $(11)_{10} = (\underline{\quad})_2$ |
| 3. $(256)_{10} = (\underline{\quad})_2$ | 7. $(74)_{10} = (\underline{\quad})_2$ | 11. $(117)_{10} = (\underline{\quad})_2$ |
| 4. $(384)_{10} = (\underline{\quad})_2$ | 8. $(1979)_{10} = (\underline{\quad})_2$ | 12. $(24)_{10} = (\underline{\quad})_2$ |

4. Octal para Decimal

- | | | |
|--|---|--|
| 1. $(57)_8 = (\underline{\quad})_{10}$ | 3. $(400)_8 = (\underline{\quad})_{10}$ | 5. $(3100)_8 = (\underline{\quad})_{10}$ |
| 2. $(43)_8 = (\underline{\quad})_{10}$ | 4. $(100)_8 = (\underline{\quad})_{10}$ | 6. $(3715)_8 = (\underline{\quad})_{10}$ |

5. Decimal para Octal

1. $(29)_{10} = (\underline{\quad})_8$

2. $(12)_{10} = (\underline{\quad})_8$

3. $(16)_{10} = (\underline{\quad})_8$

4. $(196)_{10} = (\underline{\quad})_8$

5. $(640)_{10} = (\underline{\quad})_8$

6. $(1024)_{10} = (\underline{\quad})_8$

6. Hexadecimal para Decimal

1. $(FF)_{16} = (\underline{\quad})_{10}$

2. $(ABA)_{16} = (\underline{\quad})_{10}$

3. $(16)_{16} = (\underline{\quad})_{10}$

4. $(51)_{16} = (\underline{\quad})_{10}$

5. $(FACA)_{16} = (\underline{\quad})_{10}$

6. $(CACA)_{16} = (\underline{\quad})_{10}$

7. Decimal para Hexadecimal

1. $(128)_{10} = (\underline{\quad})_{16}$

2. $(256)_{10} = (\underline{\quad})_{16}$

3. $(101)_{10} = (\underline{\quad})_{16}$

4. $(4076)_{10} = (\underline{\quad})_{16}$

5. $(3501)_{10} = (\underline{\quad})_{16}$

6. $(186)_{10} = (\underline{\quad})_{16}$

8. Diversas Bases

1. $(ECA)_{16} = (\underline{\quad})_8$

2. $(11011111001)_2 = (\underline{\quad})_{16}$

3. $(4567)_8 = (\underline{\quad})_2$

4. $(111)_{16} = (\underline{\quad})_8$

5. $(11101001101)_2 = (\underline{\quad})_8$

6. $(11100100)_2 = (\underline{\quad})_{16}$

7. $(11100100)_2 = (\underline{\quad})_8$

8. $(10010110)_2 = (\underline{\quad})_{16}$

9. $(226)_8 = (\underline{\quad})_2$

10. $(9B)_{16} = (\underline{\quad})_2$

11. $(233)_8 = (\underline{\quad})_2$

12. $(BEE)_{16} = (\underline{\quad})_2$

Answer Key for Exam A

1. Bases Quaisquer

- | | | |
|---------------------------------------|--|---|
| 1. $(27)_{10} = (\underline{1000})_3$ | 5. $(FF)_{16} = (\underline{3333})_4$ | 9. $(71)_{10} = (\underline{1000111})_2$ |
| 2. $(24)_5 = (\underline{14})_{10}$ | 6. $(174)_{10} = (\underline{336})_7$ | 10. $(83)_{10} = (\underline{53})_{16}$ |
| 3. $(90)_{10} = (\underline{230})_6$ | 7. $(361)_9 = (\underline{298})_{10}$ | 11. $(12)_8 = (\underline{A})_{16}$ |
| 4. $(1111)_2 = (\underline{33})_4$ | 8. $(1A)_{12} = (\underline{22})_{10}$ | 12. $(123321)_4 = (\underline{6F9})_{16}$ |

2. Binário para Decimal

- | | | |
|---|--|---|
| 1. $(100011)_2 = (\underline{35})_{10}$ | 5. $(11000000)_2 = (\underline{192})_{10}$ | 9. $(1000101)_2 = (\underline{69})_{10}$ |
| 2. $(110011)_2 = (\underline{51})_{10}$ | 6. $(10101000)_2 = (\underline{168})_{10}$ | 10. $(100000)_2 = (\underline{32})_{10}$ |
| 3. $(1000000000)_2 = (\underline{1024})_{10}$ | 7. $(10101010101)_2 = (\underline{1365})_{10}$ | 11. $(1010001)_2 = (\underline{81})_{10}$ |
| 4. $(1110001111)_2 = (\underline{911})_{10}$ | 8. $(101010)_2 = (\underline{42})_{10}$ | 12. $(1100)_2 = (\underline{12})_{10}$ |

3. Decimal para Binário

- | | | |
|--|--|--|
| 1. $(555)_{10} = (\underline{1000101011})_2$ | 5. $(386)_{10} = (\underline{110000010})_2$ | 9. $(36)_{10} = (\underline{100100})_2$ |
| 2. $(128)_{10} = (\underline{10000000})_2$ | 6. $(753)_{10} = (\underline{1011110001})_2$ | 10. $(11)_{10} = (\underline{1011})_2$ |
| 3. $(256)_{10} = (\underline{100000000})_2$ | 7. $(74)_{10} = (\underline{1001010})_2$ | 11. $(117)_{10} = (\underline{1110101})_2$ |
| 4. $(384)_{10} = (\underline{110000000})_2$ | 8. $(1979)_{10} = (\underline{11110111011})_2$ | 12. $(24)_{10} = (\underline{11000})_2$ |

4. Octal para Decimal

- | | | |
|-------------------------------------|---------------------------------------|---|
| 1. $(57)_8 = (\underline{47})_{10}$ | 3. $(400)_8 = (\underline{256})_{10}$ | 5. $(3100)_8 = (\underline{1600})_{10}$ |
| 2. $(43)_8 = (\underline{35})_{10}$ | 4. $(100)_8 = (\underline{64})_{10}$ | 6. $(3715)_8 = (\underline{1997})_{10}$ |

5. Decimal para Octal

- | | | |
|-------------------------------------|---------------------------------------|---|
| 1. $(29)_{10} = (\underline{35})_8$ | 3. $(16)_{10} = (\underline{20})_8$ | 5. $(640)_{10} = (\underline{1200})_8$ |
| 2. $(12)_{10} = (\underline{14})_8$ | 4. $(196)_{10} = (\underline{304})_8$ | 6. $(1024)_{10} = (\underline{2000})_8$ |

6. Hexadecimal para Decimal

1. $(FF)_{16} = (\underline{255})_{10}$

2. $(ABA)_{16} = (\underline{2746})_{10}$

3. $(16)_{16} = (\underline{22})_{10}$

4. $(51)_{16} = (\underline{81})_{10}$

5. $(FACA)_{16} = (\underline{64202})_{10}$

6. $(CACA)_{16} = (\underline{51914})_{10}$

7. Decimal para Hexadecimal

1. $(128)_{10} = (\underline{80})_{16}$

2. $(256)_{10} = (\underline{100})_{16}$

3. $(101)_{10} = (\underline{65})_{16}$

4. $(4076)_{10} = (\underline{FEC})_{16}$

5. $(3501)_{10} = (\underline{DAD})_{16}$

6. $(186)_{10} = (\underline{BA})_{16}$

8. Diversas Bases

1. $(ECA)_{16} = (\underline{7312})_8$

2. $(11011111001)_2 = (\underline{6F9})_{16}$

3. $(4567)_8 = (\underline{100101110111})_2$

4. $(111)_{16} = (\underline{421})_8$

5. $(11101001101)_2 = (\underline{3515})_8$

6. $(11100100)_2 = (\underline{E4})_{16}$

7. $(11100100)_2 = (\underline{344})_8$

8. $(10010110)_2 = (\underline{96})_{16}$

9. $(226)_8 = (\underline{10010110})_2$

10. $(9B)_{16} = (\underline{10011011})_2$

11. $(233)_8 = (\underline{10011011})_2$

12. $(BEE)_{16} = (\underline{101111101110})_2$