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| 1. What is 101.1012 in decimal? | |
| A - | 5.5 |
| B - | 1.40625 |
| C - | 5.3 |
| D - | 5.625 |

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| 1. What does 11001001 + 101100 equal using binary unsigned numbers? | | |
| A - | | 11110101 |
| B - | | 01110101 |
| C - | | 00000101 (with a carry) |
| D - | | 00000100 |
| 1. What is +12310in one's complement binary? | |
| A - | 1111011 |
| B - | 1111010 |
| C - | 0111011 |
| D - | 1110011 |
| 1. What is-12310in one's complement binary? | |
| A - | 01111011 |
| B - | 10000100 |
| C - | 10000101 |
| D - | 11111011 |
| 1. What is -12310in signed magnitude binary? | | |
| A - | | 01111011 |
| B - | | 10000100 |
| C - | | 10000101 |
| D - | | 11111011 |

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| 1. What is 1DEA16in binary? | |
| A - | 0001110111101010 |
| B - | 1001110111101010 |
| C - | 1110001000010110 |
| D - | 1110001000010101 |
| 1. What is +23410in two's complement binary? | |
| A - | 01101010 |
| B - | 01101011 (with an overflow) |
| C - | 11101010 |
| D - | 00010101 (with an overflow) |
| 1. What is -23410 as a one's complement 16-bit binary number? | |
| A - | 1111111100010110 |
| B - | 0000000011101010 |
| C - | 1111111100010101 |
| D - | 1000000011101010 |
| 1. What is -23410 as a two's complement 16-bit binary number? | |
| A - | 1111111100010110 |
| B - | 0000000011101010 |
| C - | 1111111100010101 |
| D - | 1000000011101010 |
| 1. What is -23410 as two's complement hexadecimal? | |
| A - | 00EA |
| B - | 80EA |
| C - | FF15 |
| D - | FF16 |
| 1. What is 1101102 in decimal? | |
| A - | 53 |
| B - | 54 |
| C - | 55 |
| D - | 118 |
| 1. What is +34510 in one’s complement 16-bit binary? | |
| A - | 1111111010100111 |
| B - | 1000000101011001 |
| C - | 0000000101011001 |
| D - | 1111111010100110 |
| 1. What is -1210 as a two's complement 32-bit binary number? | |
| A - | 10000000000000000000000000001100 |
| B - | 11111111111111111111111111110011 |
| C - | 00000000000000000000000000001100 |
| D - | 11111111111111111111111111110100 |
| 1. What is(45 + 12) as a 16-bit hexadecimal using two's complement arithmetic? | |
| A - | FF39 |
| B - | 0039 |
| C - | 0031 |
| D - | FF31 |
| 1. What is +23410 as two's complement hexadecimal? | |
| A - | 00EA |
| B - | 80EA |
| C - | FF15 |
| D - | FF16 |

1. The two’s complement of 1111 0011 10002 is 0000 1100 10002
   1. **True**
   2. False
2. Covert the Hexadecimal number, 14016 to its’ decimal form. Answers are shown in Decimal.
   1. 27210
   2. 31910
   3. **32010**
   4. 436810
3. What is the one’s complement of 1111 0000 1110 00002
   1. 11110000111000012
   2. **00001111000111112**
   3. 00001111000100112
   4. 00001111001000002
4. Add these two signed binary numbers 010010112 + 001011102 =
   1. **011110012**
   2. 011100012
   3. 100111002
   4. 010111002
5. The decimal number 25510 converted to its’ hexadecimal form is FF.
   1. **True**
   2. False
6. Convert the octal number 218 to its decimal form. Answers are shown in decimal.
7. 1410
8. 1510
9. 1610
10. **1710**
11. Convert the binary number 1110 11112to its’ decimal form. Answers are shown in decimal.
12. 22310
13. 22710
14. **23910**
15. 24010
16. Convert the decimal number 7810to its’ octal form.Answers are shown in octal.
17. 0198
18. **1168**
19. 1178
20. 2388
21. Convert the binary number 0111110102to its’ octal form.Answers are shown in octal.
22. 7628
23. **3728**
24. 2728
25. 1528
26. Convert the hexadecimal number B516 to its’ binary form.Answers are shown in binary.
    1. 101001012
    2. **101101012**
    3. 010111002
    4. 111110102
27. Convert the octal number 4168to its’ binary form.Answers are shown in binary.
28. **1000011102**
29. 1100011002
30. 1010011102
31. 1000101012
32. Convert 12510 to an eight bit binary number.
    1. 0111 10002
    2. 0111 11002
    3. **0111 11012**
    4. 0111 10112
33. Convert 0.5**10**to an IEEE-754 32-bit floating point number. Answers are shown in Hexadecimal.
34. F300000016
35. BF00000016
36. 3DD0000016
37. **3F00000016**
38. Convert -1.7510 to an IEEE-754 32-bit floating point number.Answers are shown in Hexadecimal.
39. BFC0000016
40. BFD0000016
41. DFC0000016
42. **BFE0000016**

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| 1. What is 1DEA16in decimal (base 10)? | |
| A - | 3561 |
| B - | 3562 |
| C - | 7658 |
| D - | 15850 |
| 1. What is -1210 as a two's complement 32-bit binary number? | |
| A - | 10000000000000000000000000001100 |
| B - | 11111111111111111111111111110011 |
| C - | 00000000000000000000000000001100 |
| D - | 11111111111111111111111111110100 |
| 1. What is 4510 + 1210 as a 16-bit hexadecimal using two's complement arithmetic? | |
| A - | FF39 |
| B - | 0039 |
| C - | 0031 |
| D - | FF31 |
| 1. What is +23410 as two's complement hexadecimal? | |
| A - | 00EA |
| B - | 80EA |
| C - | FF15 |
| D - | FF16 |
| 1. What were two problems of early computer systems? **(Choose two)** | |
| A - | Scheduling |
| B - | Setup time |
| C - | Competition with Apple |
| D - | Network inefficiencies (difficulty connecting to the internet) |