

Show & label all work on additional paper and staple that paper to this worksheet.

Convert the following decimal (base 10) numbers to binary (base 2):

1. $32 =$

2. $110 =$

Convert the following decimal numbers to octal (base 8):

3. $21 =$

4. $58 =$

Convert the following decimal numbers to hexadecimal (base 16):

5. $1113 =$

6. $1029 =$

Convert the following binary numbers to decimals:

7. $1111\ 1110 =$

8. $10\ 0111 =$

Convert the following octal numbers to decimals:

9. $11 =$

10. $266 =$

Convert the following hexadecimal numbers to decimals

11. $A11 =$

12. $13 =$

Add the following binary numbers. Set each problem up 'vertically' first.

13. $1000 + 11 =$

14. $1010\ 1111 + 101\ 1111 =$

Add the following octal numbers. Set each problem up 'vertically' first.

15. $362 + 17 =$

16. $177 + 17 =$

Add the following hexadecimal numbers. Set each problem up 'vertically' first.

17. $288 + F2 =$

18. $EF0 + B9 =$

Subtract the following binary numbers. Set each problem up 'vertically' first.

19. $1011 - 110 =$

20. $110 - 11$

Subtract the following octal numbers. Set each problem up 'vertically' first.

21. $23 - 7 =$

22. $330 - 22 =$

Subtract the following hexadecimal numbers. Set each problem up vertically first.

23. $B12 - 17 =$

24. $98 - 12 =$

Convert the following binary numbers directly to hexadecimal numbers.

25. $1011\ 1111 =$

26. $1010 =$

27. $11\ 0010 =$

28. $1100\ 1010\ 1101 =$

Convert the following hexadecimal numbers directly to binary numbers.

29. $C3 =$

20. $F1F =$