

NUMBER BASES HOMEWORK

TEXT: 4.3

LAST NAME	FIRST NAME	DATE
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Convert the given number into base 10:

1. 32_4

4. 317_{17}

2. 333_6

5. 777_{13}

3. 666_9

6. $DEDEDE_{15}$

Convert the number to a given base.

7. 0.5 to base 6

10. 0.5 to base 7

8. $\frac{2}{3}$ to base 9

11. $7.\bar{3}$ to base 3

9. 0.75 to base 16

12. 375.375 to base 8

13. Convert the number from base 8 into base 2:

44022665_8

14. Convert the number from base 2 into base 4:

101100111000101011_2

15. Convert the number from base 3 into base 9:

21020110221_3

16. Convert the number from base 9 into base 3:

2.71828_9

17. Convert the number from base 2 into base 16:

11000000111111111101110

18. Convert the number from base 16 into base 2:

$FACADE_{16}$

19. What other words/phrases can you spell using hexadecimal (base 16) digits?

20. Convert the number to base 10:

$MATH_{36}$

Convert the number into a base 10 number.

21. 14_5

27. $3B_{12}$

33. 3223_6

22. 21_6

28. 241_6

34. 1436_7

23. 12_3

29. 101_2

35. $8A0BD_{15}$

24. 34_5

30. $4A7_{14}$

36. 110202_3

25. 14_8

31. 804_9

37. $100A4_{12}$

26. 78_9

32. 101001_2

38. 1010000101_2

Convert the base 10 number into the given base.

39. 12 into base 4

47. 2876 into base 4

40. 25 into base 2

48. 1765 into base 5

41. 43 into base 12

49. 1993 into base 7

42. 153 into base 5

50. 2000 into base 2

43. 203 into base 2

51. 4368 into base 12

44. 431 into base 4

52. 12562 into base 16

45. 543 into base 12

53. 44596 into base 36

46. 1023 into base 2

54. 15941 into base 36

ANSWERS

21. 9

23. 5

25. 12

27. 47

29. 5

31. 625

33. 735

35. 438928

37. 20860

39. 30_4

41. 37_{12}

43. 11001011_2

45. 393_{12}

47. 230330_4

49. 5545_7

51. 2640_{12}

53. YES_{36}