REVISION: NUMBER BASES

Fill in the correct answer in the space provided.

1. Compete the number sequence in descending order.

   242_5 , _____ $_5$, _____ $_5$, _____ $_5$

2. Change 149_{10} to base 5.

   Answer: _____ $_5$

3. $111011_2 + 10101_2 =$ _____ $_2$

4. $1540_6 + 42_6 =$ _____ $_6$

5. $8735_9 + 2806_9 =$ _____ $_9$

6. $2102_3 - 1101_3 =$ _____ $_3$

7. $3110_4 - 322_4 =$ _____ $_4$

8. $613_7 - 125_7 =$ _____ $_7$

9. Express 23_{10} as a number in base 2.   Answer: _____ $_2$

10. What is the value of 3 in base ten, of 3144_5?   Answer: _____

11. Express $6^2 + 7^2$ as a number in base eight.   Answer: _____ $_8$

12. Express 111000101_2 as a number in base 8.   Answer: _____ $_8$

13. Given $11000_2 + k_2 = 101010_2$, what is the value of k?   Answer: k = _____ $_2$

14. Given that $2 \times 5^3 + 5^2 + 3(5) = k_5$, find the value of k.   Answer: k = _____ $_5$

15. Express 133_5 as a number in base 2.   Answer: _____ $_2$

16. Given $10111_2 < k < 11001_2$. Find the value of k as a number in base 8.   Answer: k = _____