

# Group Homework 1

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1.  $374_8$  to base 10  
 $= 4 * 8^0 + 7 * 8^1 + 3 * 8^2 = \boxed{252_{10}}$

2.  $374_{10}$  to base 8  
 $374/8 = 46r6$   
 $46/8 = 5r6$   
 $5/8 = 0r5$   
 $\rightarrow \boxed{566_8}$

3.  $3A4_{12}$  to base 10  
 $= 4 * 12^0 + 10 * 12^1 + 3 * 12^2 = \boxed{556_{10}}$

4.  $427_{13}$  to base 10  
 $= 7 * 13^0 + 2 * 13^1 + 4 * 13^2 = \boxed{709_{10}}$

5.  $344_{10}$  to base 20  
 $344/20 = 17r4$   
 $17/20 = 0r17$   
 $\rightarrow \boxed{h4_20}$

6.  $322_5$  to base 10  
 $= 2 * 5^0 + 2 * 5^1 + 3 * 5^2 = \boxed{87_{10}}$

7.  $374_{10}$  to base 27  
 $374/27 = 13r23$   
 $13/27 = 0r13$   
 $\rightarrow \boxed{dn_27}$

8.  $3112_4$  to base 10  
 $= 2 * 4^0 + 1 * 4^1 + 1 * 4^2 + 1 * 4^3 = \boxed{214_{10}}$

9.  $604_{10}$  to base 12

$$604/12 = 50r4$$

$$50/12 = 4r2$$

$$4/12 = 0r4$$

$$\rightarrow \boxed{424_12}$$

10.  $3374_{10}$  to base 9

$$3374/9 = 374r8$$

$$374/9 = 41r5$$

$$41/9 = 4r5$$

$$4/9 = 0r4$$

$$\rightarrow \boxed{4558_9}$$