

## Convert following to base 10

Make sure to show all your work.  
No Calculator Allowed.

$$\begin{array}{r} 5 \times 1 = 5 \\ 4 \times 8 = 32 \\ 3 \times 64 = 192 \\ 2 \times 512 = 1024 \end{array} \quad \left. \begin{array}{l} \\ \\ \\ \end{array} \right\} = \begin{array}{r} 1024 \\ 192 \\ 32 \\ 5 \\ \hline 1253 \end{array}$$

1.  $2345_8$  1,253

2.  $1101101_2$  109

$64 \ 32 \ 8 \ 4 \ 1$   
 $1 + 4 + 8 + 32 + 64 = 109$

3.  $10011_8$  4105

$4096 \ 8 \ 1$   
 $4105$

4.  $23A_{16}$  570

$512 \ 48 \ 10$

5.  $175_8$  125

$64 \ 64 \ 5$

6.  $FF_{16}$  255

$240 \ 15$

7.  $A7_{16}$  167

$160 + 7 = 167$

8.  $F0D_{16}$  3853

$3840 + 13$

9.  $778_8$  512

$448 + 56 + 8 = 512$

10.  $1165_8$  629

$512 \ 64 \ 48 \ 5 = 629$

11.  $3745_8$  2021

$1536 \ 448 \ 32 \ 5$

12.  $4512_8$  2378

$2048 \ 320 \ 8 \ 2$

13.  $512_8$  330

$320 \ 8 \ 2$

14.  $234_{16}$  564

$512 \ 48 \ 4$

15.  $11101_2$  29

$16 \ 8 \ 4 \ 1$

16.  $1DE_{16}$  478

$256 \ 208 \ 14$

17.  $722_8$  466

$448 \ 16 \ 2$

18.  $722_{16}$  1826

$1792 \ 32 \ 2$

19.  $101_{16}$  257

$256 \ 1$

20.  $10101010_2$  170

$128 \ 32 \ 8 \ 2$