ALGEBRA 1 TEAM — JANUARY 8, 199Y

1. $10t+u=4(u+t)$

$6t-3u=0$

$2t=u$ **48**

2. $[2*(8\#12)]\ \#\ [(3*2)\#5]$

$[2*\ -4]\ \#\ [6\#5]$

$-8\ \#\ 1\ =$ **-9**

3. $\frac{1}{1}+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}+\frac{1}{6}+\frac{1}{8}+\frac{1}{12}+\frac{1}{24}=\frac{60}{24}=$ **$\frac{5}{2}$ OR $2\frac{1}{2}$**

-224695

4. $1+8+64+512+4096+$~~26864~~$-244942=$ ~~-253367~~

5. $\frac{a+13b}{3a-b}=3$ $\quad a+13b=9a-3b$

$16b=8a$

$\frac{2}{1}=\frac{a}{b}$ $\quad \frac{a^3}{b^3}=$ **8**

37449 − 262144

6. $-3x-9<2$ $\quad x>-1\frac{1}{3}$ $\quad \cap\ -5<x\le 3$ $\quad \{-3,-2,-1,0,1,2,3\}$ **7**

7. $.25n+.10(n+15)+.05(n+25)=7.95$

$n=13$ $\quad 13+28+38=$ **79**

8. $n(n+2)+(n+n+2)=119$

$n^2+4n-117=0$ $\quad n=9$ OR -13 not positive **9, 11**

9. $\frac{5n+10}{2n+10}=\frac{5}{3}$ $\quad \frac{5n=20}{2n=8}$ **160**

$n=4$ →

10. $x(\sqrt{x^3})=\frac{x^x}{x}$

$x^2(x^{3/2})=x^x$

$x^{7/2}=x^x$ $\quad x=$ **$\frac{7}{2}$ and 1**

11. Solve only for c and d. $\quad c=13/14,\ d=13/14$ $\quad ab^0=$ **1**

12. $A=\frac{1}{2}(6)(4+1)=$ **15**

4 | --6=-1 / ---

13. $\sqrt{x+6}+x=14$ $\quad$ extraneous

$x+6=(14-x)^2$ ↙

$0=x^2-29x+190$ $\quad x=19$ or 10 **10**

14. Difference of 2 squares **4,000,000,000,000**

15. $\frac{6+3n+\frac{1}{4}+\frac{7}{8}}{4}=n$ $\quad n=$ **$\frac{57}{8}$**