September 3 **Problem #1**

Write all integers 1-50 using the integers 1, 9, 7, 9 exactly once and in that order. For example, $1=1^{979}$, $2=1+\sqrt[9]{\left\lceil \frac{7}{9} \right\rceil}$, $3=(1)^9+|7-9|$, $4=\left(1^9\right)^7+\sqrt{9}$

$5=1\cdot(9-7)+\sqrt{9}$

$6=1\cdot(9-7)\sqrt{9}$

$7=1+(9-7)\sqrt{9}$

$8=1+9+7-9$

$9=1^{97}\cdot 9$

$10=1^{97}+9$

$11=1\cdot(9-7)+9$

$12=1+(9-7)+9$

$13=1\left(\sqrt{9}+7+\sqrt{9}\right)$

$14=1+\sqrt{9}+7+\sqrt{9}$

$15=(-1)^9+7+9$

$16=(1)^9\,7+9$

$17=(1)^9+7+9$

$18=1\cdot(9-7)\cdot 9$

$19=19^{\left\lceil \frac{7}{9} \right\rceil}$

$20=1+9+7+\sqrt{9}$

$21=19-7+9$

$22=1^9+7\sqrt{9}$

$23=-1+\sqrt{9}\cdot 7+\sqrt{9}$

$24=|1-9|+7+9$

$25=1\cdot 9+7+9$

$26=1+9+7+9$

$27=(1+9-7)\cdot 9$

$28=1^9+\left\lfloor \sqrt{7} \right\rceil\cdot 9$

$29=19+7+\sqrt{9}$

$31=1+\sqrt{9}\cdot 7+9$

$32=|1-97|\div\sqrt{9}$

$33=\left(1+\sqrt{9}+7\right)\cdot\sqrt{9}$

$34=(1+9+7)\left\lceil \sqrt{\sqrt{9}} \right\rceil$

$35=19+7+9$

$36=\left(1+9+\left\lfloor \sqrt{7} \right\rfloor\right)\sqrt{9}$

$37=\left(1+\sqrt{9}\right)7+9$

$38=19\cdot|7-9|$

$39=\left(1+9+\left\lceil \sqrt{7} \right\rceil\right)\sqrt{9}$

$40=\left(1+\sqrt{9}\right)\left(7+\sqrt{9}\right)$

$41=\left\lfloor 19\sqrt{7}-9 \right\rfloor$

$42=\left|1-\sqrt{9}\right|\cdot 7\cdot\sqrt{9}$

$43=\left\lceil \left|1-\sqrt{9}\right|^7\div\sqrt{9} \right\rceil$

$44=\left\lfloor \sqrt{1979} \right\rfloor$

$45=\left(|1-9|+7\right)\cdot\sqrt{9}$

$46=\left\lfloor 1\cdot\sqrt{\sqrt{9}^7-9} \right\rfloor$

$47=|1-9|\cdot 7-9$

$48=1\cdot\sqrt{9}\cdot(7+9)$

$49=1+\sqrt{9}\,(7+9)$

$50=\left\lceil (1+9)^{\sqrt{7}}\div 9 \right\rceil$

$$30 = 1 \cdot \sqrt{9} \cdot 7 + 9$$