| Question | System | Step 1 | Step 2 | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9 | Step 10 | Step 11 | Solution |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| How many minutes are in November? | Standard | 60 * 24 * 30 |  |  |  |  |  |  |  |  |  |  | 43200 |
|  | Metric | 100 * 10 * 30 |  |  |  |  |  |  |  |  |  |  | 30000 |
| How many hours are between 3:00 AM and 7:00 PM? | Standard | $7+12=19$ | 19-3 |  |  |  |  |  |  |  |  |  | 16 |
|  | Metric | 7.91667 - 1.25 |  |  |  |  |  |  |  |  |  |  | 6.67 |
| How many days are between July 3 and September 19 ? | Standard | $31-3=28$ | $28+31=59$ | $59+19$ |  |  |  |  |  |  |  |  | 78 |
|  | Metric | 262-184 |  |  |  |  |  |  |  |  |  |  | 78 |
| How many hours are between 5:00 PM on Monday and 9:00 AM on Wednesday? | Standard | $12-5=7$ | $7+24=31$ | $31+9$ |  |  |  |  |  |  |  |  | 40 |
|  | Metric | $10-7.08=2.92$ | $2.92+10=12.92$ | $12.92+3.75$ |  |  |  |  |  |  |  |  | 16.67 |
| If January 14th is a Wednesday, then what day of the week is February 5th? | Standard | $31-14=17$ | $17+5=22$ | $22 / 7=31 / 7$ | Wednesday + 1 |  |  |  |  |  |  |  | Thursday |
|  | Metric | $36-14=22$ | $22 / 10=2.2$ | Day $4+2$ |  |  |  |  |  |  |  |  | Day 6 |
| How many minutes are between 11:43 AM on January 3 and 1:17 PM on November 19 ? | Standard | $43 / 60=.71667$ | $\begin{aligned} & (24-11.71667) \text { * } \\ & 60=736 \end{aligned}$ | $31-3=28$ | $\begin{aligned} & 28+29+31+30 \\ & +31+30+31+ \\ & 31+30+31+19 \\ & =290 \end{aligned}$ | $\begin{aligned} & 290 * 24 * 60+ \\ & 796=418396 \end{aligned}$ | $17 / 60=.28333$ | $\begin{aligned} & (12+1+.28333) \\ & * 60=796 \end{aligned}$ | $418396+796$ |  |  |  | 419192 |
|  | Metric | $\begin{aligned} & (10-4.882) * 100 \\ & =511.8 \end{aligned}$ | $323-3=320$ | $\begin{aligned} & 320 * 10 * 100+ \\ & 511.8=320511.8 \end{aligned}$ | 5.54 * $100=5.54$ | $320511.8+554$ |  |  |  |  |  |  | 321065.8 |
| What time is $1,000,000$ seconds after 10:10 PM on January 1 ? | Standard | $\begin{aligned} & 1000000 / 60 / 60 \\ & 24=11.57407 \end{aligned}$ | $\begin{aligned} & .57407 * 24= \\ & 13.778 \end{aligned}$ | . 778 * $60=36.667$ | . 667 * $60=40$ | $1+11=12$ | $12+10=22$ | $22+13=111 / 24$ | $10+36=46$ | $\begin{aligned} & 12+111 / 24= \\ & 1311 / 24 \end{aligned}$ |  |  | 11:36:40 AM on January 13 |
|  | Metric | $\begin{aligned} & 1000000 / .864= \\ & 1157407 \end{aligned}$ | $\begin{aligned} & 1157407 / 100 / \\ & 100 / 10= \\ & 11.57407 \end{aligned}$ | $\begin{aligned} & .923611+ \\ & 11.57407 \end{aligned}$ |  |  |  |  |  |  |  |  | 12.4977 |
| How many seconds are between 5:19:31 PM on September 5, 231 BC in Rome and 3:26:04 AM on August 22, 1746 in Central China? | Standard | $5+12=17$ | $\begin{aligned} & 17 * 60 * 60= \\ & 61200 \end{aligned}$ | $\begin{aligned} & 61200+19 * 60+ \\ & 31=62371 \end{aligned}$ | $30-5=25$ | $\begin{aligned} & 25+31+30+31 \\ & +31+28+31+ \\ & 30+31+30+31 \\ & +22=351 \end{aligned}$ | $1746+231=1977$ | $\begin{aligned} & 365.2425 * 1977+ \\ & 351= \\ & 722435.4225 \end{aligned}$ | $\begin{aligned} & 3 * 60 * 60= \\ & 10800 \end{aligned}$ | $\begin{aligned} & 10800+26 * 60 \\ & +4=12364 \end{aligned}$ | $\begin{aligned} & (8-1) * 60 * 60 \\ & =25200 \end{aligned}$ | $\begin{aligned} & 722435.4225 * \\ & 24 * 60 * 60+ \\ & 62371+12364 \\ & +25200 \end{aligned}$ | 62418520439 |
|  | Metric | $\begin{aligned} & (10-7.21667) * \\ & 100 * 100= \\ & 27833.33 \end{aligned}$ | $\begin{aligned} & 365-248+234= \\ & 351 \end{aligned}$ | $\begin{aligned} & 1746+231+1= \\ & 1978 \end{aligned}$ | $\begin{aligned} & 1978 * 365+351 \\ & =722321 \end{aligned}$ | $\begin{aligned} & 1.431 * 100 * 100 \\ & =14310 \end{aligned}$ | $\begin{aligned} & 722321 * 10 * 100 \\ & * 100+27833.33 \\ & +14310 \end{aligned}$ |  |  |  |  |  | 72232142143 |

