

Answer Key  
11-20  
Mole Problems

Sep 4-8:00 AM

$$\#11 \quad 564 \text{ g Zn} \left| \frac{1 \text{ mol}}{65.38 \text{ g}} \right. = 8.63 \text{ mol Zn}$$

Sep 4-8:04 AM

$$\#12 \quad 567 \text{ mol S} \left| \frac{32.06 \text{ g}}{1 \text{ mol}} \right. = 1.82 \times 10^4 \text{ g S}$$

Sep 4-8:05 AM

$$\#13 \quad 5.6833 \times 10^{43} \text{ atoms Au} \left| \frac{1 \text{ mol Au}}{6.02 \times 10^{23} \text{ atoms}} \right| \frac{196.97 \text{ g}}{1 \text{ mol Au}} = 1.8595 \times 10^{22} \text{ g Au}$$

Sep 4-8:06 AM

$$\#14 \quad 41 \text{ mol Na}_2\text{CO}_3 \left| \frac{6.02 \times 10^{23} \text{ mc}}{1 \text{ mol}} \right. = 2.5 \times 10^{25} \text{ mc Na}_2\text{CO}_3$$

Sep 4-8:07 AM

$$\#15 \quad 23 \text{ mol Ag} \left| \frac{6.02 \times 10^{23} \text{ atoms}}{1 \text{ mol}} \right. = 1.4 \times 10^{25} \text{ atoms}$$

Sep 4-8:08 AM

#16

$$4.4 \times 10^{26} \text{ mc} \left| \frac{1 \text{ mol}}{6.02 \times 10^{23} \text{ mc}} \right| \frac{180.18 \text{ g}}{1 \text{ mol}} =$$

$1.3 \times 10^5 \text{ g C}_6\text{H}_{12}\text{O}_6$

Sep 4-8:08 AM

#17

$$67 \text{ mol paperclips} \left| \frac{6.02 \times 10^{23} \text{ amount}}{1 \text{ mol}} \right| = 4.0 \times 10^{25} \text{ paper clips}$$

Sep 4-8:10 AM

#18

$$7 \text{ mol pc} \left| \frac{567 \text{ g}}{1 \text{ mol}} \right| = 4 \times 10^3 \text{ g paper clips}$$

Sep 4-8:11 AM

#19

$$1014 \text{ g pc} \left| \frac{1 \text{ mol}}{567 \text{ g}} \right| = 1.788 \text{ mol}$$

Sep 4-8:12 AM

#20

$$\frac{12 \text{ eggs}}{1 \text{ hr}} \left| \frac{24 \text{ hr}}{1 \text{ day}} \right| \left| \frac{365 \text{ days}}{1 \text{ yr}} \right| = 1.1 \times 10^5 \frac{\text{eggs}}{\text{yr}}$$

Sep 4-8:12 AM