4. Dr. Mann mixed 9.357 g of chemical A, 12.082 g of chemical B, and 7.502 g of chemical C to make 5 doses of medicine.

   a. About how much medicine did he make in grams? Estimate the amount of each chemical by rounding to the nearest tenth of a gram before finding the sum. Show all your thinking.

   A $9.357g \approx 9.4g$
   B $12.082g \approx 12.1g$
   C $7.502g \approx 7.5g$

   $$\begin{array}{r} 9.4 \\ 12.1 \\ +7.5 \\ \hline 29.0 \end{array}$$

   Dr. Mann made about 29 grams of medicine

   b. Find the actual amount of medicine mixed by Dr. Mann. What is the difference between your estimate and the actual amount?

   $$\begin{array}{r} 9.357 \\ 12.082 \\ +7.502 \\ \hline 28.941 \end{array}$$

   $$\begin{array}{r} 29.000 \\ -28.941 \\ \hline 00.059 \end{array}$$

   The difference in the estimated and actual amounts is 0.059g.

   c. How many grams are in one dose of medicine? Explain your strategy for solving this problem.

   $$\begin{array}{r} 05.7882 \\ 5\overline{)28.9410} \\ -0 \\ \hline 28 \\ -25 \\ \hline 39 \\ -35 \\ \hline 44 \\ -40 \\ \hline 41 \\ -40 \\ \hline 10 \\ -10 \\ \hline 0 \end{array}$$

   I used the standard algorithm to find my answer.

   There are 5.7882g of medicine in one dose.

   Don't forget, you can use your place value chart if needed!

   d. Round the weight of one dose to the nearest gram.

   $5.7882g \approx 6g$