

STUDENT MATERIALS

FIELD DAY FRENZY QUESTIONS

Your school is holding a field day to celebrate the end of the school year. As Class President, part of your responsibility is to help with the planning.

Task 1: Chaperone Conundrum

Your middle school has a total of 576 students in the school. Parent chaperones will be needed to take groups of students. The principal has decided that the perfect size group would be 18 students in each group. Using the long division algorithm, figure out how many chaperones the school needs for groups of 18 students. You must show all your work in the algorithm and be sure to include the answer.

32 chaperones

$$\begin{array}{r} 32 \\ 18 \overline{) 576} \\ \underline{54} \\ 36 \\ \underline{36} \\ 0 \end{array}$$

Task 2: Time Management

Now that you have figured out how many chaperones are needed, you will need to find the volunteers. You've been given the first three class periods of school to create a Sign-Up Genius for parents to sign-up for volunteering. Each class period is 60 minutes long, so you have been given 180 minutes to complete this website. If it takes an average of 8 minutes to create just one volunteer slot on the website, would three class periods be long enough?

Using long division, figure out if you have been given enough time to ensure the site is ready to launch. If not, how long will you need?

Be sure to show all steps of the long division process, as well as explaining your answer written format.

No 180 minutes
would not be enough.

$$\begin{array}{r} 22 \\ 8 \overline{) 180} \\ \underline{16} \\ 20 \\ \underline{16} \\ 4 \end{array}$$

Task 3: Creating an Answer Key

One of the math teachers thinks it would be fun to have a math event at the field day. Students will be given a worksheet with division problems and possible answers. To win the competition, the group needs to find the mistakes that were made and prove it by solving it themselves with long division. You have been asked to make an answer key for this activity. Be sure to solve the problems using long division to prove that they are correct or incorrect.

1. $21,156 \div 86 = 246$ True or False? Prove with long division.

$$\begin{array}{r} 21 \\ \times 86 \\ \hline 34 \\ \hline 1734 \\ \hline 2580 \\ \hline 2924 \end{array}$$

$$\begin{array}{r} 2 \\ \times 86 \\ \hline 30 \\ \hline 00 \\ \hline 2580 \end{array}$$

$$\begin{array}{r} 11 \\ \times 86 \\ \hline 32 \\ \hline 172 \\ \hline 2580 \\ \hline 2752 \end{array}$$

$$\begin{array}{r} 234 \\ 86 \overline{) 21156} \\ \underline{172} \\ 395 \\ \underline{344} \\ 516 \\ \underline{516} \\ 0 \end{array}$$

$$\begin{array}{r} 3 \\ \times 86 \\ \hline 516 \end{array}$$

$$\begin{array}{r} 246 \\ 86 \overline{) 21156} \\ \underline{172} \\ 395 \\ \underline{344} \\ 516 \\ \underline{516} \\ 0 \end{array}$$

If false, what is the correct answer? _____

2. $196,466 \div 23 = 8,439$ True or False? Prove with long division.

$$\begin{array}{r} 8542 \\ 23 \overline{) 196466} \\ \underline{184} \\ 1246 \\ \underline{115} \\ 96 \\ \underline{92} \\ 46 \\ \underline{46} \\ 0 \end{array}$$

If false, what is the correct answer? _____

8,542

3. $78,934 \div 647 = 123$ True or False? Prove with long division.

$$\begin{array}{r} 1 \\ 647 \\ \times 2 \\ \hline 1294 \end{array}$$

$$\begin{array}{r} 122 \\ 647 \overline{) 78,934} \\ \underline{64} \\ 143 \\ \underline{129} \\ 01294 \\ \underline{1294} \\ 0 \end{array}$$

If false, what is the correct answer?

~~123~~ 122