

3. Model $1.26 \div 0.38$. Express your answer as a mixed number. Briefly explain. (10 points)

4. Indicate whether the decimal representation of each of the following is terminating, repeating, or neither. Explain without actually finding the decimal representation. (3 points each)

(a) $\frac{21}{35}$

(b) $\frac{21}{200}$

- BONUS** 5. Using the block as the whole, explain how to find the first two decimal places in the decimal representation of the fraction $\frac{2}{7}$. (5 points)

6. Convert 0.408 to a rational number in simplest form. Show all necessary steps to explain. (6 points)

7. Convert $\frac{27}{1250}$ to a decimal without using a calculator. Show all necessary steps to explain. (6 points)

8. Use the instructional algorithm to find the following product. Show all necessary steps to explain. (8 points)

$$\begin{array}{r} 2.48 \\ \times 0.32 \\ \hline \end{array}$$

9. In a one pound package of M & M's the ratio of yellow to red is $\frac{2}{3}$. There are 120 yellow candies in the package.

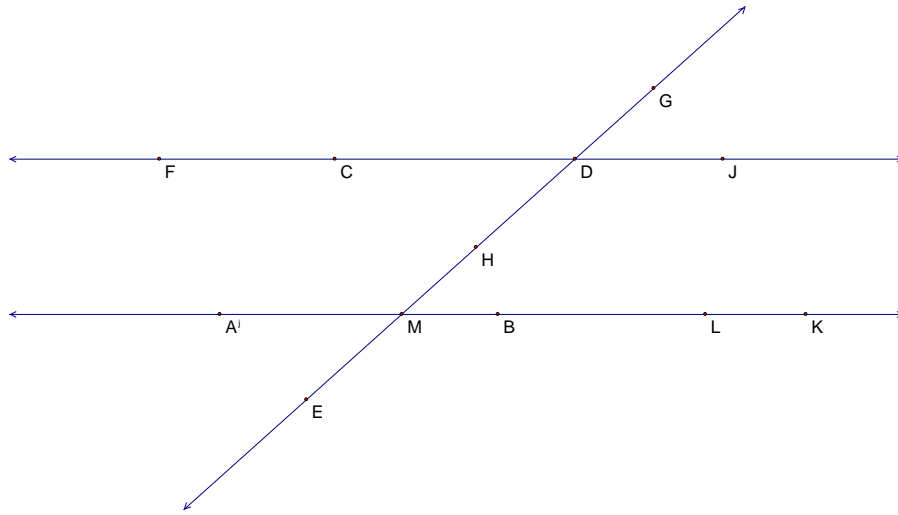
(a) How many red candies are in the package? Explain. (5 points)

(b) How many more yellow candies would we need to add to this package in order for the ratio of yellow to red to be $\frac{3}{4}$? Explain. (5 points)

(c) If the percentage of yellow in this package of M & M's is 15%, what is the total number of candies in the package? Explain. (5 points)

(d) If Sally eats 22.5% of the yellow M & M's in this package, how many yellow candies will be left? Explain. (5 points)

10. In the figure below lines \overleftrightarrow{AB} and \overleftrightarrow{CD} are parallel. Use this figure to answer the following questions. (3 points each)



- (a) List all possible names for line \overleftrightarrow{MG} .
- (b) Why is $m\angle EMB = m\angle HDJ$?
- (c) Why is $m\angle EMB = m\angle CDG$?
- (d) Using your protractor determine the measure of $\angle GDJ$.
- (e) What is the union of ray \overrightarrow{AB} and ray \overrightarrow{LB} ?
- (f) What is $\overline{EH} \cap \overline{MD}$?
- (g) Use a colored pencil to draw \overleftrightarrow{MF} in this figure.
- (h) Is $\triangle FMD$ obtuse, acute, or right? Explain.