MATH 4: Homework 1

Due September 23th before the start of the class

Instructions: Homework must be written on separate sheets of paper, clearly writing the problem number you are solving and showing all the work, not only the final answer. **Do not write answers on the page handout! Please attempt all problems.** You can use the Google Drive app on a phone or a similar method to scan your pages and make ONE PDF file to upload.

Homework must be submitted on time—at least 15 minutes before the start of the class—so that the solutions can be opened to other students. Homework will not be accepted and graded after the solutions are opened.

1. Draw a coordinate plane on quadrille paper. Mark axis "X" and axis "Y" . Mark and then connect the following points with a RULER.

$$A(0,0) \rightarrow B(6,10) \rightarrow C(9,0) \rightarrow D(0,6) \rightarrow E(12,6) \rightarrow A(0,0).$$

2. A cookie costs the same as two packs of chewing gum. Together, a cookie and one pack of gum cost 75 cents. How much does the cookie cost? (*hint: make an auxiliary drawing and make the cheapest item x*).

3. You have several 8-ounce cups and 12-ounce cups. Would you be able to measure exactly …
   a) … 28 ounces of water? Show how.
   b) … 34 ounces of water? Show how.
   c) … 31 ounces of water? Show how.

4. Compute: (*surprise your parents by writing an answer to **c and d** without making a calculation - remember what we learned in the class*)
   a) 25 × 25 b) 27 × 102 c) 11,111 × 11,111 d) 111,111×111,111

5. Compute using long division:

   a) 1770÷3 b) 1672÷8 c) 1111÷11

6. A cow weighs 20 times as much as a sheep weighs. Together the cow and the sheep weigh 2100 lb.

a) How many pounds does the sheep weigh?
b) How many pounds does the cow weigh?

7. There are 93 students in the 1st, 2nd and 3rd grades altogether. The number of students in the 1st and 2nd grades is 62, and in the 2nd and 3rd grades is 64. How many students are there in each grade?

8. Replace the addition with multiplication:

Example: $x + x + x + x = x \times 4 = 4x$

$15 + 15 + 15 + 15 + 15 = 15 \times 5$

a) 35 + 35 + 35 + 35 + 35

b) $a + a + a + a + a + a + a$

c) $x + x + x + x + x$

d) $\underbrace{82 + 82 + \ldots + 82}_{\text{10 times}}$;

e) $\underbrace{a + a + \ldots + a}_{\text{n times}}$.