Math 5e, Fall 2025 Homework 8

Homework #8 is due November 16

Instructions: Some of the problems were solved in class, and some are new. Please try to solve all problems, do your best, and show your work. Write on separate sheets of paper, not between the lines of this handout!

1. Compute:

   (a) –7 – (–9) = (b) –(–6 + (–4)) = (c) –3 – (7 + (–6)) =

   (d) –3 – (–4) + (–5) = (e) –(–(2) + 5) = (f) $-\frac{3}{4}-\left(-1\frac{1}{4}\right)=$

   (g) | (–3) + (–5) | = (h) –| 3 + (–6) | = (i) $2-\left(\frac{3}{5}-1\frac{1}{4}\right)=$

2. Solve the equations:

   (a) $|x| = 3$ (b) $z + |-6| = -15$ (c) $|y - 8| = 12$

3. Calculate using factorization:

   (a) $12 \times 17 + 35 \times 13 + 17 \times 23 =$ (b) $41 \times 80 + 25 \times 41 + 55 \times 29 =$

4. A math teacher asked her students to multiply an unknown number by 4 and then add 15. However, Alex multiplied the number by 15, then added 4, and he still got the correct answer. What was the number?

5. A pet store sells parrots and canaries. A canary costs twice as much as a parrot. One customer bought 5 canaries and 3 parrots, while the other bought 3 canaries and 5 parrots. One customer paid $20 more than the other. How much does each bird cost?

6. Timothy and Cristina together have 93 cents; Timothy and Joanna together have 104 cents; Joanna and Cristina together have 95 cents. How much money does each of them have?

7. There are 60 students in grade 5 at one middle school. At the end of the school year, 10% had a grade of D, 20% a grade of C, 40% a grade of B, and 30% a grade of A in English.
   (a) Find the number of students who got A, B, C, and D
   (b) Represent the information using a pie chart.

8. Write the numbers as decimals and calculate the value of the expressions:

   (a) $11+\frac{5}{1000}+\frac{1}{100}+\frac{7}{10}=$ (b) $\frac{4}{10000}+\frac{1}{1000}+\frac{7}{10}=$ (c) $9+\frac{1}{1000}+\frac{9}{100}=$

   (d) $112+\frac{5}{10000}+\frac{1}{10}=$ (e) $\frac{3}{1000}+\frac{1}{10000}=$ (f) $1010+\frac{8}{10000}=$

   (g) $100+\frac{9}{1000}+\frac{1}{100}+\frac{9}{10}=$