SELECTED SOLUTIONS AND COMMENTS FOR TASKS

Grade 6 – Fraction, Decimal, Percent

Tasks are intended to serve different purposes. When appropriate, students are encouraged to make choices, think strategically, and explain their reasoning. This document contains answers to selected problems. When answers vary, we try to offer an example when possible. When not possible, we describe what a student response could look like. The solutions in this document are not meant to represent an exhaustive list of suitable answers.

An Old Measurement System (fractions on a number line)	
	Placements and reasoning may vary.

The Deli Problem (fractions)	
	Answers may vary. Considering that 3 slices weighed one-third pound, roughly 9 slices would make up a full pound. Then Ruth should plan to eat one-fourth of the nine slices, or $2\frac{1}{4}$ slices.

The Cracker Box Problem (fractions)	
	There were 12 crackers in the box. Working backward, before Chelsea looked at the box there were 2 crackers. Before Nancy took 1 cracker, there were 3 crackers. Before Gina came to take one-fourth the crackers there were 4 crackers. Before Myron came and took a third of the crackers there were 6 crackers. Then before Katie took half the crackers there were 12 crackers in the box.

My Income and Expenses (decimals)	
	Answers may vary.

Number Line Challenges (decimals)	
1	Each mark represents 0.1; the unknown value is 1.1
2	There are 8 equal spaces/parts between 3 and 5, so each represents 0.25; the unknown value is 5.25
3	There are 8 equal spaces/parts between 11 and 227, so each represents $\frac{227-11}{8}=27$; the unknown value is $11+3\bullet 27=92$.
4	There are 4 equal parts between 3 and 9, so each represents 1.5; the unknown value is 4.5.
5	There are 6 equal parts between 8.4 and 21.6, so each represents 2.2; the unknown value is 4
6	There are 6 equal parts between 17 and 21, so each represents $\frac{2}{3}$; the unknown value is $22\frac{1}{3}$
7	There are 8 equal parts between $1\frac{1}{2}$ and $3\frac{3}{4}$, so each represents $\frac{9}{64}$; the unknown value is $3\frac{15}{32}$
8	There are 6 equal parts between $3\frac{2}{3}$ and $4\frac{1}{6}$, so each represents $\frac{1}{12}$; the unknown value is $3\frac{5}{6}$

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Grade 6 – fraction, decimal, percent
continued

Percents Around Us (percent)	
	Answers may vary.

Test Scores (fractions; percent)	
1	a. 98% correct b. 2% incorrect c. Correct: $\frac{51}{55} \approx 92.7\%$
2	Juan and Thomas both have good points. Juan did get 76% correct, but not quite for the reason stated. He correctly answered 7 questions on the first part of the test, and 12 questions on the second part of the test. Since we are talking about the percent of question he correctly answered on the *whole test* and not each part individually, Juan should write: $\frac{7}{25} + \frac{12}{25} = \frac{19}{25}$, which is equivalent to 76% correct.