

Answer Key for Grade 5 – Quarter #1

(for both individual work and for group work)

Notes for Parents:

- This document is intended for parents and teachers – not for students.
- This answer key doesn't include all answers.

Week 1

Group Assignment:

- Puzzle 1: There are 9 small squares, one 3x3 square, and four 2x2 squares, for a total of 14 squares.
- Puzzle 2: 6 dimes 9 nickels
- Puzzle 3: You have to start either at the bottom-left or bottom-right point of the figure.
- Puzzle 4: 96
- Puzzle 5:
 - Question 1: He gave the cashier \$101 dollars, a one hundred-dollar bill and a one-dollar bill
 - Question 2: If he had given the cashier a one hundred-dollar bill, he would have gotten \$64.65, and that would have included 4 one-dollar bills, and he would have had 5 one-dollar bills in his wallet instead of a five-dollar bill.

Week 2

Tuesday Group Assignment:

- For any two numbers, the common multiples are the multiplication table of their LCM.
- For any two prime numbers, the only common factor is 1, which is also the GCF.
- If two numbers have only 1 as a common factor then their LCM is the product of the two numbers, and the common multiples are the multiplication table of that number.
- For any two numbers, if the smaller number is a factor of the larger number (and therefore the larger number is a multiple of the smaller number), then the GCF is the smaller of the two numbers, and the LCM is the greater of the two numbers.

Thursday Group Assignment:

- $348 \div 4 = 87$
- $1195 \div 5 = 239$
- Puzzle: The possible answers are five less than multiples of 12 (eg., 7, 19, 31, 43, etc.)
- *the Big challenge!* The LCM of 132 and 144 is 1,584.

Week 3

Group Assignment:

1. a) He got back \$1.50 for change. He gave the cashier the 3 pennies so that he could get two quarters back instead of 47 cents back which would have been more coins.
b) He got back \$5.10 for change. He gave the cashier the 2 extra dollars so that he could get a five-dollar bill back.
2. a) $738 \div 3 = 246$
b) $3032 \div 8 = 379$
c) $64,482 \div 11 = 5,862$
3. a) 24 dimes and 6 nickels b) 6 quarters and 24 nickels

Week 4

Tuesday Group Assignment:

1. \$1.07
2. \$1.10. So that he would get one dime back instead of a nickel and 2 pennies.
3. \$6.45
4. \$6.50. So that he would get two quarters back instead of 45 cents.
5. \$26.10
6. \$30.10. So that he could get a ten-dollar bill back instead of a five-dollar bill and a one-dollar bill.
7. $\frac{4}{6}$, $\frac{6}{9}$, $\frac{8}{12}$, $\frac{10}{15}$, $\frac{12}{18}$, $\frac{14}{21}$, $\frac{16}{24}$, $\frac{18}{27}$, $\frac{20}{30}$, etc.
8. $\frac{6}{16}$, $\frac{9}{24}$, $\frac{12}{32}$, $\frac{15}{40}$, $\frac{18}{48}$, $\frac{21}{56}$, $\frac{24}{64}$, $\frac{27}{72}$, $\frac{30}{80}$, etc.

Thursday Group Assignment:

- 9) $\frac{11}{15}$ 10) $\frac{9}{20}$ 11) $\frac{23}{36}$

Individual Work:

- | | | | |
|--------|---------|------------|------------|
| 1. 95 | 6. 257 | 11. 1,692 | 16. 8,342 |
| 2. 152 | 7. 543 | 12. 92,129 | 17. 22,825 |
| 3. 838 | 8. 215 | 13. 2,770 | |
| 4. 72 | 9. 228 | 14. 176 | |
| 5. 56 | 10. 940 | 15. 3,375 | |

Week 5

Group Assignment:

1. He should give 1 five-dollar bill, 1 one-dollar bill, 2 quarters, and 2 pennies. The change he will get back is: 1 dime.
2. He should give 2 twenty-dollar bills, 2 one-dollar bills, and 3 pennies. The change he will get back is: 1 ten-dollar bill and 3 quarters.
3. He should give 1 twenty-dollar bill, 3 one-dollar bills, 1 nickel, and 1 penny. The change he will get back is: 1 five-dollar bill and 1 quarter.
4. The Law of Pennies can be written in many ways. Here is one possible wording:
To figure out the number of pennies you should give, simply ask yourself:
"How far above 0 or 5 is the last digit?"
Example: The 8 in \$31.28 is 3 above 5, so we give 3 pennies.
Example: The 2 in \$6.42 is 2 above 0, so we give 2 pennies.
5. Hank made 6 cards
6. \$215

Individual Work:

- | | |
|--|-------------|
| 1. $\frac{10}{12}$, $\frac{20}{24}$, $\frac{30}{36}$, $\frac{40}{48}$, $\frac{50}{60}$, $\frac{60}{72}$, $\frac{70}{84}$, $\frac{80}{96}$, $\frac{90}{108}$, etc. | 10. 1,758 |
| 2. $\frac{6}{8}$, $\frac{9}{12}$, $\frac{12}{16}$, $\frac{15}{20}$, $\frac{18}{24}$, $\frac{21}{28}$, $\frac{24}{32}$, $\frac{27}{36}$, $\frac{30}{40}$, $\frac{33}{44}$, etc. | 11. 426 |
| 3. 12, 24, 36, etc. | 12. 397 |
| 4. $\frac{1}{12}$ | 13. 444 |
| 5. $\frac{3}{20}$, $\frac{6}{40}$, $\frac{9}{60}$, $\frac{12}{80}$, $\frac{15}{100}$, $\frac{18}{120}$, $\frac{21}{140}$, $\frac{24}{160}$, $\frac{27}{180}$, etc. | 14. 1,792 |
| 6. $\frac{7}{30}$, $\frac{14}{60}$, $\frac{21}{90}$, $\frac{28}{120}$, $\frac{35}{150}$, $\frac{42}{180}$, etc. | 15. 83,242 |
| 7. 60, 120, 180, etc. | 16. 4,485 |
| 8. $\frac{23}{60}$ | 17. 377 |
| 9. 491 | 18. 294,904 |

Week 8

Group Assignment:

Puzzles

1a) The possible answers are one less than multiples of 15 (e.g., 14, 29, 44, 59, etc.).

1b) The possible answers are five less than multiples of 12 (e.g., 7, 19, 31, 43, etc.).

2a) 13 and 11

2b) 33 and 20

3a) i) 8 and 10

ii) 16 and 5

3b) i) 40 and 3

ii) 24 and 5

Individual Work:

1. $\frac{5}{8}$

2. $\frac{7}{13}$

3. $1\frac{1}{9}$

4. $\frac{31}{60}$

5. $\frac{41}{100}$

6. $\frac{1}{3}$

7. $\frac{2}{5}$

8. $\frac{4}{7}$

9. $\frac{4}{35}$

10. $\frac{2}{21}$

11. $\frac{3}{22}$

12. $\frac{5}{14}$

13. 7,128

14. 271

15. 396

16. 5,838

17. 25,506

18. 2,812,741