Simplify all answers and show your work!

1. Round to the nearest hundred: 237,724
2. Round to the nearest ten thousand: 725,354

3. ________________________ is a shortcut for repeated subtraction.

4. The denominator of a fraction tells us _____________________________________________________.

5. Multiplication is a shortcut for _________________________________.

6. Use front end rounding to estimate 632 + 86 + 3751 _________________________________.

Simplify.

7. \(3^2\) 8. \(\sqrt{25}\) 9. \(24 \div \sqrt{36} + 5^2 - 5 \cdot 2\) 10. \(64 \div 8 \cdot 2 - (5 + 3)\)

11. Draw a picture that represents \(\frac{23}{4}\)

12. Write \(\frac{5}{9}\) as an improper fraction.

13. Write \(\frac{37}{6}\) as a mixed number.

14. Is the number “1” considered prime, composite, neither, or both?

15. Add: \(\frac{5}{12} + \frac{1}{12}\)

16. Find the prime factorization of 56.

17. Find all factors of 30.

18. Write \(\frac{24}{36}\) in lowest terms.

19. Determine whether the two fractions are equivalent or not equivalent: \(\frac{50}{60}, \frac{40}{48}\).

20. Fill in the blank: \(\frac{2}{3} = \frac{\text{______}}{24}\).
21. A hospital pharmacy orders 10 boxes of syringes for $12 a box and 17 boxes of gauze rolls for $9 a box. The shipping and handling for the order comes to $8, and the hospital is not charged sales tax. How much is the total cost of the order?

22. Your boss asks you to order 1,000 pens from an office supply store. The store sells the pens by the gross (144 is a gross).
   a) How many gross will you have to order to have enough?
   b) How many extra pens will you have?

23. You are saving to buy a new portable DVD player that totals $125. Over the past three weeks, you have saved $27, $31, and $53. How much more money do you need to buy the DVD player?

24. A bookstore had a balance of $4,624 in its checking account. Mary made deposits of $824 on Monday, $914 on Tuesday, and $957 on Wednesday. On Wednesday evening, she writes checks for $213 and $186. What is the final balance?

25. Tuition at the Augusta branch of Augusta Technical College is $31 for each credit hour of classes taken. In addition, there are student service fees at $20 per quarter, a registration fee at $26 per quarter, Instructional and Technology Support Fee at $35 per quarter, and supplemental accident insurance at $4 per quarter.
   a) What is the total cost of the fees for a quarter (not including tuition)?
   b) How much will it cost Sandra to take classes summer quarter if she takes 9 credit hours of classes?

26. Daniel buys 7 books at $55 each and pays for them with $20 bills.
   a) How many $20 bills will it take to pay for the books?
   b) How much money does he have leftover?