

Simplify all answers and show your work!

1. The denominator of a fraction tells us _____.
2. _____ is a shortcut for repeated subtraction.
3. To multiply or divide mixed numbers, it's best to first change them into _____ before trying to multiply or divide.
4. _____ is a shortcut for repeated addition.
5. In order to add or subtract fractions/mixed numbers, they must have a common _____.
6. What is a common denominator for $4\frac{7}{8} + 2\frac{9}{20}$? _____
7. Fill in the blank: $\frac{4}{9} = \frac{\quad}{81}$
8. Draw a picture that represents $4\frac{1}{3}$.
9. Write $6\frac{9}{13}$ as an improper fraction.
10. Write $\frac{64}{7}$ as a mixed number.
11. Find the prime factorization of 56.
12. Write $\frac{42}{70}$ in lowest terms. (Show your work!)

13. **Add:** $\frac{7}{30} + \frac{11}{30}$

14. **Add:** $\frac{3}{4} + \frac{5}{18}$

15. **Add:** $4\frac{17}{20} + 1\frac{7}{10}$

16. **Subtract:** $9\frac{1}{4} - 4\frac{5}{8}$

17. **Subtract:** $6 - 2\frac{3}{5}$

18. **Multiply:** $\frac{10}{21} \cdot \frac{14}{35}$

19. **Multiply:** $3\frac{3}{5} \cdot 2\frac{1}{6}$

20. **Divide:** $5\frac{1}{2} \div 3\frac{1}{7}$

21. Carrie has three extension cords. One is 12 feet long, and two are 25 feet long each. How many feet of extension cord does Carrie have?

22. Linda traveled 512 miles in her car on a trip. The car used 16 gallons of gas on the entire trip. How many miles per gallon did her car achieve?

23. A ream of paper is 500 sheets. A box holds 12 reams of paper. If Sharona orders 8 boxes of paper for her office, how many sheets of paper does she order?

24. Jaquez's Auto Shop repairs 4 transmissions and 3 alternators in a week. If his shop makes \$752 for each transmission and \$476 for each alternator, how much money did his shop make that week?

25. Mike's tuition for a year of college was \$5600. He received a grant for \$3500 and a scholarship for \$1200. How much will Mike have to pay after his grant and scholarship are deducted?

26. A hospital receives 600 milliliters of a vaccine. Each dose of the vaccine is 15 milliliters. How many doses of the vaccine did the hospital receive?

27. Determine whether the two fractions are equivalent or not equivalent. Justify your answer. $\frac{32}{48}$ and $\frac{38}{54}$