

Simplify all answers and show your work!

1. In order to add or subtract fractions/mixed numbers, they must have a common _____.
2. _____ is a shortcut for repeated addition.
3. _____ is a shortcut for repeated subtraction
4. The numerator of a fraction tells us _____.
5. To multiply or divide mixed numbers, it's best to first change them into _____ before trying to multiply or divide.
6. What is a common denominator for $3\frac{5}{14} + 6\frac{4}{21}$? _____
7. Fill in the blank: $\frac{2}{7} = \frac{\quad}{56}$
8. Draw a picture that represents $2\frac{2}{3}$.
9. Write $4\frac{5}{9}$ as an improper fraction.
10. Write $\frac{63}{5}$ as a mixed number.
11. Find the prime factorization of 60.
12. Write $\frac{36}{45}$ in lowest terms. (Show your work!)

13. Add: $\frac{5}{16} + \frac{7}{16}$

14. Add:
$$\begin{array}{r} \frac{2}{3} \\ + \frac{7}{15} \\ \hline \end{array}$$

15. Add:
$$\begin{array}{r} 3\frac{5}{18} \\ + 3\frac{7}{12} \\ \hline \end{array}$$

16. Subtract:
$$\begin{array}{r} 7\frac{1}{6} \\ - 3\frac{2}{3} \\ \hline \end{array}$$

17. Subtract:
$$\begin{array}{r} \\ - 3\frac{3}{4} \\ \hline \end{array}$$

18. Multiply: $\frac{35}{24} \cdot \frac{9}{20}$

19. **Multiply:** $3\frac{3}{4} \cdot 2\frac{4}{5}$

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

21. Nancy is allowed to make 200 copies a month on the departmental copy machine. A test for one class requires 26 copies of two pages, and a test for a second class requires 21 copies of two pages, how many copies will she have left for the rest of the month after these copies are made?

22. After an injury, Sam is told by his doctor to take 4 ibuprofen tablets 5 times a day. At this rate, how many days will a new bottle of 100 ibuprofen tablets last?

23. The low temperature for a day in January was 21° . The average low for that day is 33° . How many degrees lower was the actual temperature?

24. Sheets of commemorative stamps are to be printed containing 120 stamps and having 8 stamps on each row. How many rows of stamps are on the sheet?

25. Barry receives a paycheck twice a month. On each paycheck, he makes \$745 before deductions and has \$156 deducted. How much money does Barry make in a month after deductions?

26. Admission to a car show was \$8 per adult and \$2 for children. If 83 adults and 37 children attended, how much total money was spent on admission to the car show?

27. Determine whether the two fractions are equivalent or not equivalent. Justify your answer. $\frac{12}{22}$ and $\frac{18}{33}$