

Simplify all answers and show your work!

1. Round to the nearest thousand: 643,924
2. Round to the nearest ten: 62,932
3. _____ is a shortcut for repeated addition.
4. The numerator of a fraction tells us _____.
5. Exponents are a shortcut for _____.
6. Use front end rounding to estimate $723 + 2894 + 84$ _____.

Simplify.

7. 2^3
8. $\sqrt{49}$
9. $36 \div 9 \cdot 2 + 4^2 - 3$
10. $7^2 + \sqrt{81} - (16 + 11)$

11. Draw a picture that represents $3\frac{1}{4}$
12. Write $8\frac{3}{5}$ as an improper fraction.

13. Write $\frac{46}{7}$ as a mixed number.

14. Is the number "1" considered prime, composite, neither, or both?
15. **Add:** $\frac{7}{16} + \frac{3}{16}$

16. Find the prime factorization of 48.
17. Find **all** factors of 24.
18. Write $\frac{18}{45}$ in lowest terms.

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

20. **Subtract:**

$$\begin{array}{r} \frac{11}{14} \\ - \frac{8}{21} \\ \hline \end{array}$$

21. **Add:**

$$\begin{array}{r} \frac{8}{9} \\ - \frac{5}{12} \\ \hline \end{array}$$

22. Steven packed nuts in small bags for sale at the store. There were two different sized bags. The small bags held 16 peanuts or 11 walnuts. The large bag held 45 peanuts or 32 walnuts. Steven packed 11 small bags of peanuts, 6 small bags of walnuts, and 7 large bags of peanuts. How many nuts did he pack in all?

23. The first English dictionary, prepared in 1604 by Robert Cawdrey, defined 3,000 English words. In 1720, Nathan Bailey published the first English dictionary that tried to include most English words instead of just the hard ones. His dictionary contained about 60,000 words. How many more words did Bailey's dictionary contain than Cawdrey's dictionary?

24. A bottle of cough syrup holds 250 ml of medicine. Each dose is 15 ml.

a) How many 15 ml doses does the full bottle contain?

b) How much medicine is left over?

25. The Nut House, a store in the mall, uses 2 bags of nuts in every 4 loaves of nut bread. How many bags of nuts are used to make 12 loaves of nut bread?

26. The pet shelter had a "dog wash" to raise money to take care of the animals at the shelter. They charged \$4 per dog. If they made \$204, how many dogs did they wash?

27. In a class of 30 students, 12 of them are wearing sneakers.

a) What fraction of the students **are** wearing sneakers?

b) How many of the students them are **not** wearing sneakers?

c) What fraction of the students are **not** wearing sneakers?