

Instructions: Record your answers to each of these problems directly on this page. Do the work on a separate page and attach these pages to this one. You should do the work by hand, but you may check your work with a calculator.

1. Convert to an improper fraction

a) $-10\frac{1}{3}$ b) $20\frac{3}{5}$ c) $8\frac{1}{2}$ d) $-15\frac{2}{3}$ e) $6\frac{2}{5}$

2. Add or Subtract the mixed numerals as required.

a) $19 - 5\frac{3}{4}$ b) $9\frac{3}{5} - 3\frac{1}{2}$ c) $6\frac{3}{8} + 10\frac{5}{6}$ d) $23\frac{5}{16} - 14\frac{7}{12}$

3. Multiply or Divide the mixed numerals.

a) $-2\frac{3}{10} \cdot 4\frac{2}{5}$ b) $5\frac{4}{5} \div 2\frac{1}{2}$ c) $\frac{5\frac{1}{2} - 2\frac{1}{3}}{4\frac{3}{16}}$

4. Evaluate and simplify to lowest terms.

a. $4\frac{1}{2} \div 2\frac{1}{2} + 8 - 4 \div \frac{1}{2}$ b. $\sqrt{1\frac{9}{25}} + \frac{2}{3} - \frac{\frac{1}{2}}{4 \cdot \frac{\sqrt{4}}{7}}$

5. Convert improper fractions to mixed numbers

a. $\frac{15}{7} \rightarrow$ c. $\frac{153}{21} \rightarrow$
 b. $\frac{684}{9} \rightarrow$

6. Convert mixed numbers to improper fractions

a. $5\frac{3}{4} \rightarrow$ b. $12\frac{1}{7} \rightarrow$

7. Operations on fractions and mixed numbers

a. $3\frac{7}{15} + 2\frac{11}{12} + 11\frac{1}{4} \rightarrow$ c. $3\frac{1}{5} - 2\frac{1}{3}$
 b. $2\frac{1}{3} \times 3\frac{3}{4} \rightarrow$ d. $27\frac{1}{2} \div \frac{5}{8}$

8. Suppose a company orders $25\frac{1}{2}$ cases of paper towels and $\frac{2}{3}$ of these paper towels are going to one location and $\frac{1}{3}$ are going to a second location. How many cases does each location receive?

9. Jean has $24\frac{1}{2}$ yards of material and she purchased to make dresses for the girls in the elementary school choir. If each dress requires $2\frac{1}{4}$ yards of material, how many dresses can she make?
10. Suppose a board is $17\frac{1}{8}$ inches long and we are going to cut a piece off that is $8\frac{1}{2}$ inches long, how long is the piece that is left?
11. Round to the nearest hundredth.
a) 0.6751 b) -0.10346
12. Add. $47.8 + 219.852 + 43.59 + 666.713$
13. Subtract. $51.31 - 2.291$
14. Simplify. $3.2r - 4.1t + 5.6t - 1.9r$
15. Multiply. $0.984 * 3.3$
16. Divide. $2.7 \overline{)129.6}$
17. Simplify. $5.5^2 \times [(6 - 7.8) \div 0.06 + 0.12]$
18. Estimate the value of $74.68 \div 24.7$ to the nearest whole number.
19. Compute the following problems without a calculator.
- | | |
|--|---|
| a. $2\frac{4}{7} + 6\frac{9}{10} =$ | g. $3\frac{1}{2} - 1\frac{1}{13} =$ |
| b. $6\frac{1}{8} - 4\frac{1}{2} =$ | h. $2\frac{1}{2} \times 4\frac{7}{8} =$ |
| c. $12\frac{1}{2} \div 3\frac{1}{4} =$ | |
| d. $(2 \times 4) + (5 \times 6) + (10 - 4 + 6) - 13 =$ | |
| e. $56 \times 3 - (19 \div 3) =$ | |
| f. $\frac{2}{3} + 5\frac{7}{6} + 14\frac{5}{8} =$ | i. $3\frac{3}{16} \times 12\frac{4}{5} =$ |
20. Calculate the following problems without a calculator.
- $14.567 + 37.890 + 4.576 + 2.3 + 3.0 =$
 - $0.98421 - 0.68315 =$
 - $987.035 \times 0.025 =$
 - $12 \div 36.60 =$
21. Write the expressions as decimals.
- Thirty and two hundred seventy-nine thousandths
 - Twenty-nine and eighty-one hundredths
22. Write the decimal in words.
- 0.479
 - 31.4