

Chapters 3 & 4 Unit Test – Fractions and Decimals

Name _____ Section _____

Be sure to show all your work and circle your answer.

Perform the indicated operations. Write your answer as a mixed number in lowest terms wherever possible:

1) $\frac{15}{28} + \frac{11}{28} - \frac{5}{28}$

2) $\frac{7}{10} + \frac{11}{15} + \frac{7}{20}$

3) $\frac{4}{9} - \frac{1}{8}$

4) $7\frac{13}{22} + 8\frac{5}{6}$

5) $17\frac{1}{15} - 9\frac{7}{9}$

6) $23 - 7\frac{7}{16}$

7) A rectangular piece of land is $1\frac{3}{5}$ miles by $2\frac{1}{3}$ miles. Find the perimeter.

8) On Friday, Mathias wrote $\frac{1}{3}$ of his paper that was due Monday. On Saturday, he wrote another $\frac{3}{5}$ of his paper. If he finished his paper on Sunday and it was thirty pages long, how many pages did he write on Sunday?

9) An Electrician has a piece of wire that is $75\frac{3}{8}$ inches long. If she cuts off a piece that $42\frac{5}{6}$ inches, how much wire does she have left?

Perform the indicated operations:

10) $\frac{8}{3} \left(\frac{11}{16} - \frac{1}{2} \right)^2 - \frac{15}{64} \cdot \frac{1}{3} \div 5(4)$

Convert each decimal to a fraction or mixed number in lowest terms:

11) 0.85

12) 18.48

Convert each number into a decimal (round to the nearest ten thousandth):

13) $7\frac{3}{16}$

14) $\frac{8}{11}$

Round each number to the indicated place value:

15a) 768.92735 to the nearest hundredth.

15b) 7861.07625 to the nearest thousandth.

Perform the indicated operations:

16) $78.95 + 8.891 + 14 + 6.579 + 0.031$ 17) $9.8 - 3.7865$

18) $(78.36)(0.234)$ 19) $8.11992 \div 0.023$

20) $1.083 \bullet 0.025$ 21) $0.0756 \div 0.36$

Arrange in order from smallest to largest:

22) $0.6, \frac{2}{3}, 0.06, \frac{8}{15}$

Solve the following:

- 23) On August 1, Mike has a balance of \$6257.89 he owes on his visa credit card. During the month of August, he charges \$234.13 in groceries, \$121.58 in gas, and \$137.34 in going out to eat and makes a minimum payment of \$187.74. If he also gets charged a late payment fee of \$39 and an over the credit line fee of \$39 and the interest is \$175.79, find his balance at the end of the month.
- 24) A heated piston measures 9.484 centimeters in diameter. When it is cold, it measures 9.47 centimeters. How much does it expand when heated?
- 25) A facility charges an hourly fee of \$77.95 per hour plus \$24.98 per person in attendance. If the facility is rented for a wedding reception for $4\frac{1}{2}$ hours and has 234 people in attendance, what is the total charge for using the facility if the sales tax is \$503.43?

Answers:

- 1) $\frac{3}{4}$ 2) $1\frac{47}{60}$ 3) $\frac{23}{72}$ 4) $16\frac{14}{33}$ 5) $7\frac{13}{45}$ 6) $15\frac{9}{16}$ 7) $7\frac{13}{15}$ miles
8) 2 pages 9) $32\frac{13}{24}$ inches 10) $\frac{1}{32}$ 11) $\frac{17}{20}$ 12) $18\frac{12}{25}$ 13) 7.1875
14) ≈ 0.7273 15a) ≈ 768.93 15b) ≈ 7861.076 16) 108.451 17) 6.0135
18) 18.33624 19) 353.04 20) 0.027075 21) 0.21 22) 0.06, $\frac{8}{15}$, 0.6, $\frac{2}{3}$
23) \$6816.99 24) 0.014 centimeters 25) \approx \$6699.53