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Directions:

Please complete the following problems and *show your work*. - You have 90 minutes to complete your work, and you may use a calculator. You must show your work and have all the proper labels in order to receive full credit. *All fractions must be reduced and proper unless the directions request otherwise.*

Addition:

1) $4 + 15 + 432 + 10$

$$\begin{array}{r} 432 + 20 \\ 432 \\ + 20 \\ \hline 461 \end{array}$$

1) $\frac{461}{\quad}$

2) $23.45 + 95.3 + 1.212$

$$\begin{array}{r} 95.3 \\ 23.45 \\ + 1.212 \\ \hline 119.962 \end{array}$$

2) $\frac{119.962}{\quad}$

Subtraction:

3) $78 - 17$

$$\begin{array}{r} 78 \\ - 17 \\ \hline 61 \end{array}$$

3) $\frac{61}{\quad}$

4) $\$7,430.29 - \$2,597.73$

$$\begin{array}{r} 7430.29 \\ - 2597.73 \\ \hline 4832.56 \end{array}$$

4) $\frac{4,832.56}{\quad}$

Multiplication:

5) $5,017 \times 201$

$$\begin{array}{r} 5,017 \\ \times 201 \\ \hline 5017 \\ 00000 \\ + 1003400 \\ \hline 1,008,417 \end{array}$$

5) $\frac{1,008,417}{\quad}$

6) 65.34×3.8

$$\begin{array}{r} 65.34 \\ \times 3.8 \\ \hline 52272 \\ 196020 \\ + 000000 \\ \hline 248.292 \end{array}$$

6) $\frac{248.292}{\quad}$

Division: (round to the nearest penny or hundredth for dollar amounts)

7) $\$642 \div 31$

$$\begin{array}{r} 20 \\ 31 \overline{) 642} \\ \underline{62} \\ 22 \\ \underline{22} \\ 0 \end{array}$$

7) $\frac{20.22}{\quad}$

8) $6.75 \div .16$

$$\begin{array}{r} 37.5 \quad 31.25 \\ 0.16 \overline{) 6.75} \\ \underline{-6.7} \\ 05 \\ \underline{-5} \\ 0 \end{array}$$

8) $\frac{37.5}{\quad}$

~~31.25~~
~~31.25~~
~~31.25~~

Raise the following fractions:

$$9) \frac{2}{3} = \left(\frac{8}{12} \right)$$

$$10) \frac{5}{7} = \left(\frac{20}{28} \right)$$

Reduce the following fractions: (All fractions must be reduced and proper.)

$$11) \frac{6}{9} = \left(\frac{2}{3} \right)$$

$$12) \frac{14}{20} = \left(\frac{7}{10} \right)$$

Add the following fractions: (All fractions must be reduced and proper.)

$$13) \frac{5}{6} + \frac{3}{4} = \left(\frac{8}{10} \right)$$

$$14) 6 \frac{1}{5} + 2 \frac{2}{3} = 8 \frac{3}{15} + \frac{10}{15} + \frac{13}{15} = \left(8 \frac{13}{15} \right)$$

Subtract the following fractions: (All fractions must be reduced and proper.)

$$15) \frac{3}{4} - \frac{1}{4} = \frac{2}{4} = \left(\frac{1}{2} \right)$$

$$16) 4 \frac{1}{2} - 1 \frac{1}{8} = 3 \frac{2}{16} - \frac{2}{16} = \frac{6}{16} = 3 \frac{6}{16} = \left(3 \frac{3}{8} \right)$$

Multiply the following fractions: (All fractions must be reduced and proper.)

$$17) 2 \frac{1}{3} \times \frac{5}{6} = \frac{5}{18} \times \frac{15}{18} = \frac{75}{18} = \left(2 \frac{5}{6} \right)$$

Divide the following fractions: (All fractions must be reduced and proper.)

$$18) 4 \frac{1}{2} \div 2 \frac{5}{8} = \left(2 \frac{4}{5} \right)$$

$$\frac{8}{16} \div \frac{10}{16}$$

$$\frac{2}{16} \cdot \frac{16}{10} = \frac{128}{160} = \frac{64}{80} = \frac{32}{40} = \frac{16}{20} = \frac{8}{10} = \frac{4}{5}$$

Converting

Directions: Fill in the missing blanks by converting decimals, fractions, and percentages. All fractions must be proper fractions and reduced in order to get full credit.

$$0.45 = \frac{45}{100}$$

$$\frac{9}{20}$$

Percents		Decimals		Fractions
45%	→	19. 0.45	→	20. $\frac{9}{20}$
21. 60%	→	22. 0.60	→	$\frac{3}{5}$
23. 4%	→	.04	→	24. $\frac{1}{25}$

$$0.04 = \frac{04}{100} = \frac{1}{25}$$

Evaluate

25. Evaluate the following expression:

$$0.4 \div 8 \times 4$$

$$\begin{array}{r} 0.0125 \\ 0.4 \overline{) 32} \\ \underline{- 32} \\ 0 \end{array}$$

Write your answer as an integer or a decimal. Do not round.

$$0.0125$$

26. Evaluate the following expression.:

$$0.4 + 0.6 - 0.8$$

$$\begin{array}{r} 0.4 \\ + 0.6 \\ \hline 0.10 \\ - 0.8 \\ \hline 0.2 \end{array}$$

Write your answer as an integer or a decimal. Do not round.

$$0.2$$

27. Evaluate the following expression:

$$0.4 \div (8 \times 4)$$

$$\begin{array}{r} 0.0125 \\ 0.4 \overline{) 32} \\ \underline{- 32} \\ 0 \end{array}$$

Write your answer as an integer or a decimal. Do not round.

$$0.0125$$

28. Evaluate the following expression.:

$$0.4 + (0.6 - 0.8)$$

$$\begin{array}{r} 0.4 \\ + -0.2 \\ \hline 0.2 \end{array}$$

Write your answer as an integer or a decimal. Do not round.

0.2

29. Evaluate the following expression.:

$$(64 + 6) \div (17 - 10) + 20^2$$

$$70 \div 7 + 20^2$$

$$10 + 20^2 = 410$$

410

30. Evaluate the expression.:

$$(64 + 6) \times (17 - 10) + (10 - 5)^2$$

$$70 \times 7 + 5^2$$

$$490 + 25 = 515$$

515

Word Problems

31. For a fundraiser, 6 people each donated \$82 to a university. How much money did the university receive?

$$\begin{array}{r} \times \\ 82 \\ \times 6 \\ \hline 492 \end{array}$$

\$492

32. The cafeteria wants to buy 210 new forks. If each package contains 7 forks, how many packages should the cafeteria buy?

$$\begin{array}{r} 30 \\ 7 \overline{) 210} \\ \underline{-21} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

30

33. In March, it rained 0.2 inches. It rained 0.1 inches less in April than in March. How much did it rain in April?

0.1 inches

34. Jenny bought 3 t-shirts, one for each of her three brothers, for \$9.95 each. The cashier charged her an additional \$6.07 in sales tax. She left the store with a measly \$4.08. How much money did Jenny start with?

$$\begin{array}{r} 2 \times \\ 9.95 \\ \times \quad 3 \\ \hline 29.85 \end{array}$$

$$\begin{array}{r} 29.85 \\ + 6.07 \\ \hline 35.92 \end{array}$$

$$\begin{array}{r} 35.92 \\ + 4.08 \\ \hline 40.00 \end{array}$$

\$ 40

35. The Patterson and Cruz family go out to Pizza Hut to celebrate a college graduation. One family has $1 \frac{3}{6}$ of a pie left over and the other family has $1 \frac{1}{6}$ of a pie left over? The Patterson family says they'll take home all the left overs. How much pizza in total will they take home?

$$2 \frac{4}{6}$$

$2 \frac{4}{6}$

36. Amy rode her bicycle $1 \frac{1}{2}$ miles from her house to the park. Then she rode 1 mile from the park to the library. How many miles did Amy ride in all?

Simplify your answer and write it as a proper fraction or as a whole or mixed number.

$2 \frac{1}{2}$

37. Before beginning voice lessons, Molly already knew how tossing 3 piece, and she expects to learn 2 new piece during each week of lessons. How many weeks of lessons will Molly need before she will be able tossing a total of 45 pieces?

$$\begin{array}{r} 22.5 \\ 2 \overline{)45} \\ \underline{45} \\ 0 \end{array}$$

22.5

38. Daryl is setting out some snacks for friends he is having over. He has 10 crackers and 15 slices of cheese. If he wants each plate to be identical, with no food left over, what is the greatest number of plates Daryl can prepare?

10

39. Darell is a tour guide who gives several tours over the course of a morning shift and an evening shift. His morning shift tours are given to groups of 17 people while his evening shift tours are given to groups of 16 people. If the total number of tourists in the morning shift is the same as the total number of tourists in the evening shift, what is the minimum number of tourists that Darell guides in each shift?

16

40. Ronald has already jarred 3 liters of jam and will jar an additional 1 liter of jam every day. How many days did Ronald spend making jam if he jarred 11 liters of jam?

8