# Review for Test #2 over Ch 3 and 4

**Work all the problems on a separate piece of paper showing all steps.**

**Find the LCM of the following:**

1) 4, 9, 12

2) 6, 8, 10

**Compare using the symbols > or <:**

3a) $\frac{11}{24}$ $\frac{4}{9}$

3b) $\frac{2}{3}$ $\frac{9}{16}$

4a) 2.4888 _____ 2.49

4b) $6\frac{7}{8}$ _____ 6.879

**Arrange in order from smallest to largest:**

5) $0.7\overline{5}$, 0.705, 0.10, $\frac{3}{4}$, 0.7

**Change the following into a fraction or a mixed number (show all steps):**

6a) 0.35

6b) 2.888

**Convert into a decimal (show all steps & round to the nearest ten-thousandth if needed):**

7a) $17\frac{9}{16}$

7b) $56\frac{3}{17}$

**Perform the indicated operations and reduce to lowest terms. Write your answer as a mixed number if possible:**

8) $\frac{3}{8} + \frac{1}{8} + \frac{7}{8} + \frac{5}{8}$

9) $\frac{13}{11} - \frac{8}{11} + \frac{2}{11} - \frac{7}{11}$

10) $\frac{3}{10}$ plus $\frac{9}{15}$ less $\frac{3}{20}$.

11) The sum of $3\frac{11}{12}$ and $5\frac{3}{4}$.

12) $2\frac{4}{7}$ less than $11\frac{2}{5}$.

13) $9\frac{3}{8}$ less $\frac{1}{4}$.

14) $11\frac{2}{3} - 5$

15) $9 - 5\frac{7}{8}$

**Perform the indicated operations and reduce to lowest terms. Write your answer as a mixed number if possible:**

16) $\frac{5}{8} \div \frac{3}{4} \div \frac{3}{2} + 0 \div \frac{10}{21}$

17) $7\frac{3}{8} \div 0 + \frac{4}{9} \bullet \frac{9}{16}$

18) $\frac{11}{12} - \frac{1}{3} \bullet \frac{7}{4}$

19) $\left(\frac{2}{3} - \frac{1}{6}\right)^2 \div \frac{3}{4} + \frac{3}{8}$

20) $\left(4\frac{2}{3} \bullet 1\frac{3}{7} - 5\frac{1}{3}\right)^2 \div \left\{2\frac{2}{3}\right\} + 4\frac{5}{6}$

21) $\left(\left[\frac{1}{2}\right]^3 + \frac{5}{12} \bullet \frac{2}{3}\right) - \frac{1}{4}$

**Round off the following numbers to the indicated place value:**

| | Number | Thousandths | Hundredths | Tenths | Tens |
|---|---|---|---|---|---|
| 22) | 26.8921 | | | | |
| 23) | 45.4293 | | | | |
| 24) | 83.9978 | | | | |
| 25) | 91.6845 | | | | |

**Perform the indicted operation (show all steps & round to the nearest thousandth if needed):**

26) The total of 7.89, 169, 143.985, 100.0003, 2.1, and 3

27) The difference between 2332 and 556.987

28) Subtract 4.796 from 17.09

29) The product of 56.7 and 0.09.

30) (7.435) (0.35)

31) 5 divided into 3.14

32) 0.456 divided by 0.04

33) The quotient of 6724 and 994.

**Simplify the following:**

34) $3\{3.2\}^2 - 7.5(4.5 - 4.4)^2 + 5$

35) $(9 - 6.75)^2 + (2.3 + 4.1[5.6])$

36) $10^2 \div 8 - 17.36 \bullet 0.003$

37) $12.6 \bullet 9.1 \div 3.9 \bullet 4.8$

38) $\frac{3}{5} - 0.4 \div 1.6\{\frac{11}{8} - 0.075\}^2$

39) $0.7 \bullet (9 - \frac{6}{7})^2 + 1.5 - \frac{7}{10}$

**Solve the following:**

40) A restaurant has $15\frac{3}{8}$ gallons of cooking oil on hand at the beginning of the day. Twelve hours later, the restaurant had $6\frac{9}{16}$ gallons of cooking oil left. How much cooking oil did the restaurant use during the day?

41) A Ranger planted $\frac{7}{8}$ of an acre with pine trees. A fire later on the week destroyed $\frac{1}{12}$ of an acre of the newly planted trees. If the ranger later planted an additional $\frac{5}{6}$ of an acre with pine trees, what is the total acreage of new planted pine trees?

42) On a particular car, each turn of the tie-rod sleeve changes the toe-in setting by $\frac{5}{16}$ inches. If the tie-rod sleeve makes $2\frac{2}{3}$ turns, how much will the toe-in setting change?

43) An electrical job requires five pieces of cable each $7\frac{5}{12}$ feet long, four pieces of cable each $2\frac{1}{3}$ feet long, and nine pieces of cable each $3\frac{5}{8}$ feet long. What is the total amount of cable needed?

44) A Plumber charges $49.95 for a house call plus $35.95 per hour for labor to replace two toilets and repair a leak under the sink. If, with tax, the materials cost $458.37 and the plumber spent $3\frac{1}{2}$ hours on the job, what was the total bill?

45) Samantha puts down 20% on a purchase of a house. She finances the remaining $150,000 with either a 15-year or 30-year mortgage at 7.25% interest. The monthly payments for the 30-year mortgage are $1023.26 while the monthly payments for the 15-year mortgage are $1369.04. How much will she save with the 15-year mortgage?

46) A $\frac{5}{16}$-inch bolt weighs 0.45 pounds. How many bolts are there in 135-pound keg?

47) Sandy Squirrel bought seven Krabby Patties for $1.14 each, five shakes for 96¢ each, and six bags of fries for 79¢ each. If she gave Squidword a $20 bill and sales tax was $1.38, how much did she get in change?

48) While in the hospital, Mrs. Puff knitted a total of five sweaters. If she used 4.8 yards of yarn for each sweater and knitted 3 yards of yarn on average per day, how many days was she in the hospital?

**Answers:**

1) 36 2) 120 3a) > 3b) > 4a) < 4b) < 5) 0.10, 0.7, 0.705, $\frac{3}{4}$, $0.\overline{75}$

6a) $\frac{7}{20}$ 6b) $2\frac{111}{125}$ 7a) 17.5625 7b) ≈ 56.1765 8) 2 9) 0

10) $\frac{3}{4}$ 11) $9\frac{2}{3}$ 12) $8\frac{29}{35}$ 13) $9\frac{1}{8}$ 14) $6\frac{2}{3}$ 15) $3\frac{1}{8}$

16) $\frac{5}{9}$ 17) undefined 18) $\frac{1}{3}$ 19) $\frac{17}{24}$ 20) $5\frac{1}{2}$ 21) $\frac{11}{72}$

22) 26.892, 26.89, 26.9, 30 23) 45.429, 45.43, 45.4, 50

24) 83.998, 84.00, 84.0, 80 25) 91.685, 91.68, 91.7, 90 26) 425.9753

27) 1775.013 28) 12.294 29) 5.103 30) 2.60225 31) 0.628

32) 11.4 33) 6.7645... ≈ 6.765 34) 35.645 35) 30.3225

36) 12.44792 37) 141.12 38) 0.1775 39) $47\frac{3}{14}$ 40) $8\frac{13}{16}$ gallons

41) $1\frac{5}{8}$ acres 42) $\frac{5}{6}$ inches 43) $79\frac{1}{24}$ feet 44) ≈ $634.15

45) $121,946.40 46) 300 bolts 47) $1.10 48) 8 days