

## T102 PART 2

You may use your calculator on the second part of the test. You may not use decimals on any part of this test.

1) Place  $>$ ,  $<$  or  $=$  between each of the following pairs to make true sentences. Show work to justify your answer.

a)  $\frac{4}{5}$    $\frac{99}{125}$

b)  $\frac{5}{8}$    $\frac{160}{256}$

c)  $-\frac{4}{9}$    $-\frac{43}{99}$

**Perform the following computation. Leave your answer as a mixed number in simplest form.**

2)  $1\frac{1}{5} + 6\frac{2}{3} \div 2\frac{1}{2} - 11\frac{7}{10}$  \_\_\_\_\_

3) How many full  $1\frac{1}{2}$  pound bags of corn can be filled from 25 pounds of corn? How many pounds of corn will be left? \_\_\_\_\_

4) I had  $3\frac{1}{2}$  pounds of trail mix and I ate  $\frac{2}{3}$  of a pound two days in a row. How much trail mix did I have left? \_\_\_\_\_

5) Find three fractions between  $\frac{3}{5}$  and  $\frac{5}{7}$ . \_\_\_\_\_

6) A restaurant has 64 occupied or reserved tables; five-ninth are occupied and one-third are reserved. How many tables are there? \_\_\_\_\_

7) One can of oats weighs 2 pounds and one can of a mixture of half corn and half wheat weighs 3 pounds. If we want 2400 pounds of a mixture that is one-third of each, oats, corn, and wheat, how many cans of oats should we use? \_\_\_\_\_

8) A recipe calls for  $2\frac{3}{4}$  cup of flour to make 3 dozen cookies, how much flour is required to make 8 dozen cookies?

9) If the ratio of whales to sharks is  $\frac{2}{7}$  and the total number sighted is 72, how many sharks are sighted?

10) A school has 320 students. The ratio of students to teacher is 16:1. How many more teachers are needed to have a 12:1 ratio?

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**Solve each of the following for x. ( two points each)**

11)  $3x - 4 = 12$

\_\_\_\_\_

12)  $3^x = 81$

\_\_\_\_\_

13)  $2^{-x} = \frac{1}{16}$

\_\_\_\_\_

14)  $4^x = 32$

\_\_\_\_\_

## Answer Key

Testname: REVIEW CHAPTER 5B ON WEB

1) a)  $>$     b)  $=$     c)  $<$

2)  $-7\frac{5}{6}$

3) 13 bags with 1 pounds left

4)  $2\frac{1}{6}$  pounds

5) various example:  $\frac{43}{70}$ ,  $\frac{22}{35}$ ,  $\frac{9}{14}$

6) 72 tables

7) 400 cans

8)  $7\frac{1}{3}$  cups

9) 56 sharks

10) 12 teachers

11)  $\frac{16}{3}$  or  $5\frac{1}{3}$

12) 4

13) 4

14)  $\frac{5}{2}$