

Self-Assessment Math Competency

The following assessment provides a review of addition, subtraction and multiplication of decimals, solving common fractions, and calculating percents. If you enter the nursing program, you will need to be proficient in these math functions as you will be performing these on a daily basis in nursing practice.

Please complete the following problems without the use of a calculator. The use of calculators is not permitted for any of the math competency exams in our program. If you score less than 85% on this exam, we strongly recommend you seek tutoring in math prior to applying to the nursing program.

1. Perform the following additions: (Do not round off)

a) $1.25 + 9.4 + 11.13 =$

b) $15.94 + 3.47 =$

c) $3.15 + 4.13 + 22.6 =$

d) $7.94 + 9.73 + 1.9 =$

2. Perform the following subtractions: (Do not round off)

a) $9.07 - 0.46 =$

b) $6.72 - 0.565 =$

c) $34.3 - 0.44 =$

d) $14.87 - 5.031 =$

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3. Change the following decimals to percent.

a) 0.317

b) 0.013

c) 0.263

4. Multiply the following decimals. (Express answers to the nearest hundredth, if necessary)

a) $6.2 \times 3.7 =$

b) $0.459 \times 0.26 =$

c) $8.12 \times 6.32 =$

d) $0.8 \times 0.16 =$

5. Divide the following decimal fractions. (Express answer to the nearest hundredth, if necessary)

a) $\frac{0.36}{0.25} =$

b) $\frac{7.8}{4.5} =$

c) $\frac{98}{6.8} =$

d) $\frac{135}{0.35} =$

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6. Identify the decimal with the highest value in each of the following.
Circle the correct answer.

a) 6.9

b) 0.898

c) 3.62

a) 0.65

b) 0.56

c) 0.565

a) 0.09

b) 0.79

c) 0.05

a) 0.007

b) 0.008

c) 0.01

7. Express the following numbers to the nearest tenth.

a) 3.677 =

b) 0.44 =

c) 12.63 =

d) 15.09 =

8. Reduce the following fractions as far as possible.

a) $\frac{34}{24} =$

b) $\frac{126}{86}$

c) $\frac{69}{5} =$

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9. Multiply the following fractions and decimals fractions. (Express answer in decimal form to the nearest tenth, if necessary)

a) $\frac{0.325}{0.5} \times \frac{0.25}{0.75} =$

b) $\frac{30}{15} \times \frac{25}{125} \times \frac{5}{35} \times \frac{40}{45} =$

c) $\frac{15.0}{5.5} \times \frac{0.05}{0.5} =$

10. Change the following fractions to percent. (Express answer to the nearest tenth, if necessary)

a) $\frac{15}{18} =$

b) $\frac{21}{30} =$

c) $\frac{4}{5} =$

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11. Complete the following story problems showing your work.

- a) Mary receives daily medication doses of 2.25 mg at breakfast, 3.5 mg at lunch and 4.75 mg at dinner. How many mgs does Mary consume each day?
- b) You have just given 3 tablets with a dosage strength of 2.67 mg each. What was the total dosage administered?
- c) You have 4 tablets. One is labeled 4.25 mg, the second tablet is labeled 0.5 mg, the third is labeled 0.25 mg, and the fourth is labeled 1.75mg. What is the total dosage of these four tablets?
- d) Mrs. Walker is ordered 7.5 mg of a drug. The tablets available are 2.5 mg each. How many tablets will be needed for the ordered dose?