

Math 210: Assignment 2 (25 points)

Due by the time you take Exam II – Late Assignments will not be accepted.

There are 2 pages to this assignment

- Do all work on a separate sheet of paper.
- You must show work to receive credit.
- Turn in work in order (#2 should come after #1, etc.)
- You may work in groups of up to 3 people. Points will be taken off, if more than 3 names are on one assignment.

1. (3 points) Add/Subtract the fractions:

a. $1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5}$

b. $\frac{2}{3} + 3\frac{4}{5} - 2\frac{1}{6} - \frac{7}{10}$

2. (3 points) Multiply/Divide the fractions:

a. $\left(5\frac{7}{9}\right) \cdot \left(2\frac{5}{11}\right)$

b. $\left(3\frac{1}{5}\right) \div \left(-2\frac{5}{7}\right)$

3. (3 points) Simplify by using order of operations:

a. $\frac{2}{3} + \frac{4}{5} \div 2 - \frac{3}{5} \cdot \frac{1}{2}$

b. $25.035 + 0.250 \cdot 162.35 - 52.056 \div 11.09$ Round your answer to the nearest 100th

4. (2 points) Simplify as much as possible: $\frac{\frac{1}{2} + \frac{2}{3} + \frac{3}{4}}{\frac{3}{4} - \frac{2}{3} - \frac{1}{2}}$

5. (4 points) Solve the equations (round all decimals answers to the nearest 100th):

a. $\frac{4}{5} + y = 2\frac{3}{4}$

b. $\frac{4}{5}y = 2\frac{3}{4}$

c. $2.023 = v - 5.42$

d. $2.023 = v \div 5.42$

6. (2 points) Arrange the numbers from smallest to largest:

0.656, 0.565, 0.605, 0.506, 0.056, 0.065, 0.650, 0.560

7. (2 points) Simplify. Round all decimal answers to the nearest 100th.

a. $3\sqrt{121} - 2\sqrt{36}$

b. $5\sqrt{6} + 4\sqrt{20}$

8. (3 points) Simplify as much as possible:

a. $4(2z + 4) + 3(5z + 1) + 4(z - 3)$

b. $2(3x^3 - 2x + 4) - 3(5x^2 - 4x + 1)$

9. (2 points) A box has a volume of 75.345 cubic centimeters. The height of the box is 1.4 times longer than the width. The width is 3.48 centimeters. Find the length of the box, to the nearest 100th.

10. (2 points) The Pythagorean Theorem states that if you have a right triangle (like the one shown below) $c = \sqrt{a^2 + b^2}$. If $a = 11$ cm and $b = 14$ cm, find the length of c .

