

Instructions:

PLEASE PROVIDE STEP BY STEP EXPLANATIONS

Time Limit 45 minutes

Please read the questions carefully before answering

Each problem 10 points unless otherwise stated.

1. Find the Least Common Multiple of the denominators of the two fractions and then combine into a single fraction:  $\frac{5}{12} - \frac{2}{3}$ .

2. Simplify the following: (a)  $\frac{-64}{-48}$  (c)  $\frac{2^3}{2^5}$

3. Write using symbols: The sum of 3 and A equals 2.

4. (30 points) Simplify (remove the parentheses step by step, starting with the innermost): (a)  $(9 + 14) - (13 - 15)$  (b)  $1 - ((4 * 3) - 2 + 7)$  (c)  $(x - 4)(x + 1)$

5. Simplify:  $\sqrt{16 \times 49}$ .

6. (20 points) Simplify:

$$\frac{12}{20} + \frac{3}{14} \times \frac{21}{15} - \frac{11}{5}$$

7. Round 3.1415926 to three decimal places.