

Challenge 8 PS 3 Due 10/16 at the beginning of class

Name \_\_\_\_\_

Each problem is worth 5 point: 3-points for Work/Explanation and 2 points for the correct answer. Use another piece of paper to complete your work. Number the problems and box your answers. Partial credit will be awarded. Neatness counts. Single cross outs are ok.

Write and sign the Academic Honesty Statement below.

Signature \_\_\_\_\_

**Check to see if the given number is a solution for the equation.**

1)  $x^2 - 36 = 5x$ ; check  $x = 9$

**Reduce to lowest terms.**

2)  $\frac{33}{54}$

**Simplify.**

3)  $3\{[6(x - 1) + 4] - [2(3x - 1) + 4]\}$

**Multiply and write the product as a mixed number in simplest form.**

4)  $33 \cdot \frac{1}{9}$

**Divide. Express the quotient as a mixed number in lowest terms.**

5)  $\frac{-5\frac{2}{5}}{-2\frac{1}{4}}$

**Add or subtract.**

6)  $\frac{1}{9} + \frac{1}{8}$

**Simplify.**

7)  $\left(\frac{1}{2}\right)^2 \cdot \left(\frac{2}{3} - \frac{5}{18}\right)$

8)  $\frac{12^2 - 14}{45 - 2(3 + 1)^2}$

**Solve and check your answer (-1 point if no check)**

9)  $-9x + 3(-2x - 2) = -13 - 8x$

**Solve.**

- 10) Last year, Hayden earned \$307 per week. This year, his salary increased to \$326 per week. What is the percent of increase? Round to the nearest tenth of a percent.