

## EXTRA PRACTICE — Exercises

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### Unit VI – Second Degree Relations and Higher - Algebraic Fractions Part C – Problem Solving with Algebraic Fractions **Lesson 1 – “Fraction” Problems**

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For each of the following story problems, answer the four analysis questions to find the system of equations needed to solve. Then solve and use common sense to check your answer.

1. Five times the multiplicative inverse of a number is added to the number, and the result is  $10\frac{1}{2}$ .  
What is the number?
2. One integer is two less than another integer. Three times the reciprocal of the lesser integer plus five times the reciprocal of the greater integer is  $\frac{7}{8}$ . What are the two integers?
3. The sum of a number and five times its reciprocal is negative six. Find the number.
4. The denominator of a fraction is one less than twice the numerator. If seven is added to both the numerator and denominator, the resulting fraction has a value of  $\frac{7}{10}$ . Find the original fraction.
5. The numerator of a fraction is five less than the denominator. If the numerator is increased by four, the resulting fraction will be  $\frac{1}{2}$ . Find the original fraction.

# EXTRA PRACTICE — Answer Key

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For each of the following story problems, answer the four analysis questions to find the system of equations needed to solve. Then solve and use common sense to check your answer.

1.  $\frac{1}{2}$  or 10

2. 10 and 8

3.  $^{-}5$  or  $^{-}1$

4.  $\frac{7}{13}$

5.  $\frac{3}{8}$