

**APPLICATION OF RATIONAL EXPRESSIONS – WORD PROBLEMS**  
In-Class Assignment

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**[5]** 1. The speed of a river current is 6.0 km/h. If a boat travels 60 km downstream in the same time it takes to travel 30 km upstream, what is the speed of the boat in still water?

**[5]** 2. Find the speed of a boat in still water if a river current has speed of 2.8 km/h. The boat needs 2 hours 15 minutes moving downstream and 2 hours 52 minutes moving upstream covering the same distance.

**[5]** 3. A boat with average speed of 15.0 km/h in still water needs 1.5 h to travel upstream. The boat takes only 50 minutes to travel the same distance downstream. Find the speed of a river current.

**[5]** 4. The sum of two integers is nine. The difference of double the numbers is 38. Find the integers.

**[5]** 5. The difference of two integers is four. The sum of their reciprocals is  $\frac{-7}{48}$ . What are the two numbers?

**[5]** 6. The sum of the reciprocals of two consecutive **even** numbers is  $\frac{17}{144}$ . Determine the two numbers algebraically.

