

# Pre-Calculus 11 Section 6.7 – Rational Word Problems

**Homework:** Section 6.7 on Pg. 242; #1-2all, 3abef

## **Tips for doing Rational word problems**

1. Define variable(s) and setup equation(s)
2. Solve the equation(s)
3. Relate your solution(s) back to the problem

**Ex 1** The sum of a number and 3 times its reciprocal is  $\frac{28}{5}$ . Find the number(s).

**Ex 2** A hot water tap takes 25 minutes less time than a cold water tap to fill a bathtub. Together they fill the bathtub in 2 hours. Find how long each tap takes to fill the tub on its own. (Round to two decimal places)

**Ex 3** A speedboat travels 45km downriver with the current, then turns around and travels upriver back to where it started. If the total trip time was 3.5 hours and the speed of the current is 12 km/h, what is the speed of the boat in still water? (Round to 2 decimal places)