# Problem 54

A new job offers you a 20% increase in your annual salary and a 20% decrease in the number hours you need to work each year. What would be the percent increase in your hourly pay?

# Answer

50%

# Explanation

Assume you make \$1 per year for 1 hour of work per year. A $20\%$ increase in your pay would pay you \$1.20, and a $20\%$ decrease in your time would result in .8 hours of work. Hence $\frac{1.2}{.8} \Rightarrow \frac{3}{2} \Rightarrow 1.5 \Rightarrow 50\%$ increase in your hourly pay.