

**Reading:** Werner 15: Commercial Ratemaking  
**Model:** Text Example  
**Problem Type:** Loss-Rated Composite Rating

W-15 (050) - (Problem 1)

**Find** Calculate the final composite rate given the following information:

**Given**

(1) Trended Ultimate Loss & ALAE	5,400
(2) Expected Loss & ALAE Ratio	76%
(3) Adjusted Premium	?
(4) Trended Composite Exposure	324
=> (5) Composite Rate	?

Step 1 calculate the adjusted premium

$$\begin{aligned}
 \text{adjusted premium} &= \text{Trended Ultimate Loss \& ALAE} & / & \text{Expected Loss \& ALAE Ratio} \\
 &= 5,400 & / & 76\% \\
 &= 7,105.26
 \end{aligned}$$

Step 2 calculate the final composite rate

$$\begin{aligned}
 \text{composite rate} &= \text{adjusted premium} & / & \text{Trended Composite Exposure} \\
 &= 7,105.26 & / & 324 \\
 &= 21.93 & \text{<=== final answer}
 \end{aligned}$$

**Reading:** Werner 15: Commercial Ratemaking  
**Model:** Text Example  
**Problem Type:** Loss-Rated Composite Rating

W-15 (050) - (Problem 2)

**Find** Calculate the final composite rate given the following information:

<b>Given</b>	(1) Trended Ultimate Loss & ALAE	15,700
	(2) Expected Loss & ALAE Ratio	67%
	(3) Adjusted Premium	?
	(4) Trended Composite Exposure	314
	=> (5) Composite Rate	?

Step 1 calculate the adjusted premium

$$\begin{aligned}
 \text{adjusted premium} &= \text{Trended Ultimate Loss \& ALAE} & / & \text{Expected Loss \& ALAE Ratio} \\
 &= 15,700 & / & 67\% \\
 &= 23,432.84
 \end{aligned}$$

Step 2 calculate the final composite rate

$$\begin{aligned}
 \text{composite rate} &= \text{adjusted premium} & / & \text{Trended Composite Exposure} \\
 &= 23,432.84 & / & 314 \\
 &= 74.63 & \text{<=== final answer}
 \end{aligned}$$