

Unit Rates

1. Jonathan's parents told him that for every 5 hours of homework or reading he completes, he would be able to play 3 hours of video games. His friend Lucas's parents told their son that he could play 30 minutes for every hour of homework or reading time he completes. If both boys spend the same amount of time on homework and reading this week, which boy gets more time playing video games? How do you know?

2. Mr. Rowley has 16 homework papers and 14 exit tickets to return. Ms. Rivera has 64 homework papers and 60 exit tickets to return. For each teacher, write a ratio to represent the number of homework papers to number of exit tickets they have to return. Use unit rates to determine whether the ratios are equivalent?

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Jonathan gets $\frac{5}{3} = 0.6$ hours (36 minutes) for every 1 hour of homework and reading time, whereas Lucas gets only 30 minutes for every 1 hour of homework or reading time.

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Mr. Rowley's ratio of homework papers to exit tickets is $16:14 = \frac{16}{14}$ which is approximately 1.14.

Ms. Rivera's ratio of homework papers to exit tickets is $64:60 = \frac{16}{15}$ which is or approximately 1.07.

The ratios are not equivalent.