Want to Rent a Movie?

You and your friend each purchased identical subscriptions to an online video rental site. When you joined, you each paid the one-time membership processing fee. You also paid a flat rate for each movie that you downloaded. By the end of the first month, you had downloaded 8 movies and paid $16.50, while your friend had downloaded only 6 movies and paid $14.00.

Write and solve a system of linear equations to answer the questions below. Document your work to support your answer.

1. What was the one-time membership processing fee?

2. What was the per-movie rental fee?