5. Sol is buying a new TV. The cash price is $1675.89, or he can take the store promotion: "24 easy monthly payments of $75.00!" If Sol chooses the store promotion, what annual rate of interest will he pay for the TV?

\[
\text{Cash Price} \quad \text{vs} \quad \text{Store Promotion} \\
\$1675.89 \quad \text{vs} \quad 24 \times 75 = \$1800 \text{ paid}
\]

\[
\text{Store Prom. Int. Rate} \quad \frac{1800 - 1675.89}{1675.89 \times 12} \times 100 = 3.79\% \text{ lower than a personal loan}
\]

6. A store offers a bike for $689.98. You want to purchase it, but cannot pay cash. Your options are:

- Option 1: 10% down payment then 6 monthly payments of $115.00
- Option 2: No down payment and then 24 monthly payments of $35.00
- Option 3: Pay using a cash advance on your credit card. You would be charged interest at an annual rate of 20.95%, and you expect that it will take you 20 days to pay the credit card balance.

Which payment plan offers the better deal?

7. Jacquie bought a new car. The cash price was $24789.00, but she is paying in monthly installments of $450.00 for 60 months. What rate of interest is she paying?
8. George wants to buy a new living room set. His payment options are:

Option 1: Pay $2543.90 cash
Option 2: Store payment plan of 6 monthly payments of $435.00
Option 3: Pay using a cash advance on his credit card. He would be charged interest at an annual rate of 22.75%, and he expects that it would take him 30 days to pay the credit card balance.

a) If he chooses Option 2, how much will he pay in interest?

Option 1 - Cash: $2543.90
Option 2 - 6 months:

\[ \text{Interest} = \frac{435.00 \times 30}{365} = 36.00 \text{ dollars} \]

b) If he chooses Option 3, how much will he pay for the living room set?

\[ \text{Total paid} = 2543.90 + 48.00 = 2591.90 \text{ dollars} \]

9. Considering interest rate only, which is the better option on a $859.40 purchase?

Option 1: 4 monthly payments of $220.00
Option 2: 6 monthly payments of $150.00

Option 1:

\[ 4 \times 220 = 880 \text{ dollars} \]

Option 2:

\[ 6 \times 150 = 900 \text{ dollars} \]

But...

\[ \text{less paid but larger payments} \]