

## STORE PROMOTIONS

Stores want your business! They want you to buy their products, especially big ticket items that cost a lot. So what do stores do to encourage you to buy their product? They advertise special deals like “Buy Now! No Down Payment” or “Free Delivery” or “Make No Payments for One Year” and others. A down payment is a partial payment sometimes required at the time of purchase to secure the purchase. The rest of the cost of the purchase is paid off over time, and usually at a high interest rate.



Example 1: Michelle needs to buy a new refrigerator. The store has one she likes for \$999.95 and there is a promotion running that offers “Nothing Down and 4 Easy Monthly Payments of \$275.” Michelle decides to buy the refrigerator on this plan.

- a) What is the cost of the refrigerator on the payment plan?
- b) Use the simple interest formula to calculate what rate of interest Michelle is being charged.

Solution: a) Multiply the payment by 4.

$$\$275 \times 4 = \$1100$$

The cost of the refrigerator on the plan is \$1100.

- b) Calculate the difference in cost and list price, assign the values to their correct spot, choose the correct formula, substitute and solve.

The difference in price is:  $\$1100.00 - \$999.95 = 100.05$

This is the interest charged.

The Principal is always the original cost.

$$I = \$100.05 \quad P = \$999.95 \quad r = ? \quad t = 4 \text{ months} = 4 \div 12$$

$$r = I \div (P \times t) \times 100$$

$$r = 100.05 \div (999.95 \times 4 \div 12) \times 100$$

$$r = 30.0\%$$

The interest rate charged is 30%. WOW!

Sometimes stores will give you the option to choose between two (or more) different payment options for payment if you cannot afford to pay cash at the time of purchase. Be sure you understand all the details of any promotion or payment option before you commit to it.

Example 2: A store offers a bike for sale. Your payment options are:

Option 1: Pay cash of \$639.98 plus 12% tax.

Option 2: Pay 10% down payment then 6 monthly payments of \$115.00 (no tax)

Option 3: No down payment, and then 24 monthly payments of \$35.00 (no tax)

Which payment plan offers the best deal?

Solution: Calculate each option and then compare the results.

Option 1: Multiply the price by the tax rate and add the results together.

$$\$639.98 \times 0.12 = \$76.80$$

$$\text{Total} = \$639.98 + \$76.80 = \mathbf{\$716.78}$$

Option 2: Calculate 10% and add 6 payments of \$115.00

$$\$639.98 \times 0.10 + 6 \times \$115.00 = \$64.00 + \$690 = \mathbf{\$754.00}$$

Option 3: Multiply 24 payments by \$35.00

$$\$35.00 \times 24 = \mathbf{\$840.00}$$

The best deal is the cash price.

Notice that the longer you finance the purchase (24 months) the higher the overall cost, even if the monthly payments are lower.

## **ASSIGNMENT 7 – STORE PROMOTIONS**

1) Jessica is buying a new big screen TV priced at \$1599.99. She can pay the cash price or take the sale promotion of “No Down Payment and 24 Easy Monthly Payments of just \$95!” If Jessica chooses the Easy Monthly Payments, how much will she pay for the TV, and what interest rate is she paying?

2) Justin bought a new car. The cash price (including tax) was \$32 456.75, but he is paying monthly installments of \$675 for 60 months. What interest rate is he paying?

3) Considering interest rate only, which is the better option on a \$495.80 purchase?  
Option 1: 4 monthly payments of \$140.00  
Option 2: 6 monthly payments of \$90.00

4) Valerie needs to buy a new living room set. Her payment options are:

Option 1: Pay cash \$2945.00 plus 12% tax.

Option 2: Pay 15% down payment then 10 monthly payments of \$300.00 (no tax)

Option 3: No down payment, and then 6 monthly payments of \$555.00 (no tax)

How much does each option cost? Which payment plan offers the best deal?