 **Discount Savings**

Problem 1 – A 20% Discount

Your favorite sporting goods store is having a sale. Use your TI-73 calculator to create a table that displays the discount and sale price for items originally costing $20, $30, $40, etc., up to $100 for a sale when all items are reduced by 20%.

1. Using the TI-73 home screen, make a table for the 20 percent off sale. You can enter percent calculations in various ways. These are shown for $30 at the right.

```
20%*30          6
.20*30          6
(20*30)/100     6
```
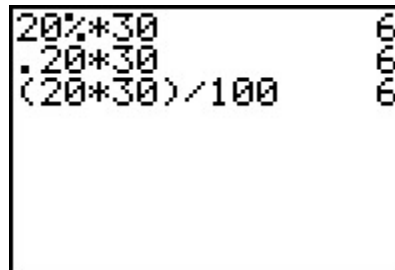
Original Price	20% off Discount	Sale Price
$20		
$30		
$40		
$50		
$60		
$70		
$80		
$90		
$100		
x (any original price)		

2. Write an equation for the amount of the discount. _____

3. Write an equation for the sale price after the discount. _____

4. Use the TI-73 table feature to make a table for the 20 percent off sale. Enter the "amount of discount" equation in Y1 and the "sale price" in Y2. Press & to enter the equations.

Then press – ӡ and enter the settings at the right to set up the table.

```
TABLE SETUP
 TblStart=20
 △Tbl=10
Indpnt: Auto Ask
Depend: Auto Ask
```

5. What would the discount be for an item that was originally $40? _____

6. What would the sale price be for an item that was originally $60? _____

7. What was the original price for an item that is $72 during the sale? _____

8. How can you find the sale price for an item that originally cost $25?

   _____

9. How can you find the sale price for an item that originally cost $42?

   _____

Problem 2 – The Sale Gets Greater

10. Now make a table for a 40% off sale.

Original Price	40% off Discount	Sale Price
$20		
$30		
$40		
$50		
$60		
$70		
$80		
$90		
$100		
x (any original price)		

11. How did you change the original equations (Y1 and Y2) to create the second table?

    _____

12. What would the discount be for an item that was originally $40? _____

13. What would the sale price be for an item that was originally $60? _____

14. What was the original price for an item that is $72 during the sale? _____

15. How can you find the sale price for an item that originally cost $25?

    _____

16. Suppose you have $24.50 to spend. Find the original price for the most expensive item you can afford during the 40% off sale. _____

17. Write a one step rule to find the sale price for any item during a 40% off sale, using *x* as the original price.

    _____