Lesson 4

Remember:
Pretty **P**lease **M**y **D**ear **A**unt **S**ally
(From left to right; **P**arentheses; **P**ower; **M**ultiply; **D**ivide; **A**dd, **S**ubtract)

If a customer comes into your shop for an estimate, what types of things would you need to know?

- What repair is needed?

- How much labor is involved?

- What parts are needed? Net price?

- How much mark-up on parts?

- Cost to customer? (parts only)

- Tax rate – different rates in some states

- Labor rate

- Total cost to the customer

How would we figure our wages? Where do we get these numbers?

- Where labor rates come from?

- How do we use a Flat Rate manual?

- What is Factory Rate?

- What is Independent Rate?

- What is Hourly Rate?

- Who can we established retail figure and add the cost of the parts together?

- What about parts, what would we do with multiple parts?

Given the following values, figure out the cost of repairs, costs or markup for each situation.

L = Labor Cost/hr

T = Total Time in Hours

Mn= Material Cost per part

Qn= Quantity of part

S = Sales tax rate in percent

Sub Total = (LxT)+(M1xQ1)+(M2xQ2)+. . . . +(MnxQn)

Total Cost = Subtotal + (S x Subtotal)

1. What is the total cost of a job, if the flat rate time is 0.2 hours, the hourly rate is $45.00 and the cost of materials is $2.50 (only one is needed), the tax rate is 6%.

2. Sam estimates that it will take him 0.6 hours to do an oil change. If the cost of the filter is $7.95, and oil is $1.70/qt and it takes 5 quarts, how much will it cost for the oil change if his flat rate is 35.00/hr?

3. A water pump on a 1992 Chrysler takes 2.3 hours to complete. The shop rate is $48.00/hr the water pump cost $34.50, it requires 2 gallons of antifreeze at $6.50/gallon. Sales tax rate is 7% what is the total cost of the job?

4. Given the formula A = (b1 + b2) /2 • h find A if
      b1 = 12
      b2 = 18
      h = 5

Calculate mark-up:
1. If the retail price for a water pump is found using: P=C + (20% • C), what is the price of the water pump if the cost is $19.00 and the mark-up is 20%.

2. The invoice on a Ford Excursion is $23,750.00 and the mark up on vehicles is 17%, what is the sticker price on the Excursion?

Calculate a discount:
3. If the retail price of a brake rotor is $56.00 and the shop discount is 22%, what is the cost of the rotor to the shop? Take the price of the rotor and subtract the percent•rotor to get the discount price.

Cost = Retail price — (Percent •Retail price)

Work through traditional math examples:

4. Find y when: $y = 3x + 2$ if x=5

5. Find y when: $2y = 2x + 1$ if x=5

Complete Work Sheet and Homework Assignment!

You MUST Show All Your Work or Your Paper Will Not Be Graded!

Remember:

NEVER WORK FOR FREE!

Lesson 4 Worksheet

Name: _____ AM-1: _____ PM _____ Date: _____

1. What is the total cost of a job, if the flat rate time is 1.4 hours, the hourly rate is $65.00 and the cost of materials is $23.50 (only one is needed), the tax rate is 6%.

2. John estimates that it will take him 0.8 hours to do a four tire change and balance. If the cost of a valve stem is $1.25 per tire and balancing cost $9.00 per tire. How much will it cost to change and balance four tires, if his flat rate is 72.50/hr?

3. A water pump on a 2000 Jeep Wrangler takes 2.3 hours to complete. The shop rate is $58.00/hr the water pump cost $24.75, it requires 2 gallons of antifreeze at $9.50/gallon. Sales tax rate is 7% what is the total cost of the job?

4. Given the formula A = (b1 + b2)/2 •h find A if:
    b1 = 14
    b2 = 21
    h = 7

5. Given the formula A =(b1 + b2)/2 x h find A if:
    b1 = 32
    b2= 26
    h = 50

Lesson 4 Homework

Name: _____ AM-1: _____ PM _____ Date: _____

1.   The retail price of a transmission is $1200.00 and the shop discount is 27%. What is the cost of the transmission?

2.   Randy makes $21 a flat rate hour. Book time to replace a transmission is 6 hours. How much money will he earn to perform this job?

3. Given the following values, find the total cost:

L = $50; T = 4.3; M1 = $3.50; Q1 = 3; M2 = $2.75; Q2 = 5; M3 = $3.40; Q3 = 1; S = 6%;

4. Given the formula $A = \dfrac{b_1 + b_2}{2} * h$ find A if

   b_1 = 15
   b_2 = 24
   h = 3

5. What is the retail price of the drive shaft if the cost is $230 and the markup is 22%?

6. The invoice on a PT Cruiser is $11,350 and the markup on the vehicle is 18%, what is the sticker price on the PT Cruiser?

7.   Given y = 4x - 3, find y if x = 5.

8.   Given 3y = 3x + 6, find y if x = 2

9. Harry's Hardware offers its employees a 15% discount on all merchandise. If an employee purchases $45 worth of hardware, what will the price be with a 15% discount.

10. What is the total cost of a tune up if the flat rate time is 2.2 hours, the hourly rate is $55.00, The material cost is $162.50. The tax rate is 6%