

Marvelous Meaningful Monthly Math

Sponsored by

Central Area Tech Prep, Mitchell Technical Institute, and Bridges

Transportation, Distribution and Logistics December

Career – Automotive Parts Specialist

Math Activity

Being an auto parts specialist, you really have to pay attention to the particulars of your work. But when it comes to math skills, the requirements are pretty general. "We use math on a daily basis when calculating the receipts. Since people usually buy more than one item at a time, it can get pretty tricky," says auto parts specialists Allan Ho.

You are an auto parts specialist. The winter has finally approached and your semi-annual "blue tag" sale has begun. All items with a blue tag on them are discounted another 25 percent. Demanding customers are flooding your boss's shop with purchases. It brings tears of joy to your boss, but for you, they are tears of fear and fatigue. The cashiers are all extremely busy, so the boss comes up to you and tells you to open another till.

A mob of customers rushes to you. Since this is a sale, people are not making just one but multiple purchases. Your first customer is buying the parts to tune up and wash his car. He buys spark plugs, oil, air and gas filters, a PCV valve, a box of oil, ignition wires and some wax for his car. He also buys a new sport muffler. You have to calculate all of the purchases for the customer.

Here are your numbers:

Parts

Performance spark plugs \$40 (blue tagged)
Oil (\$6), air (\$8) and gas (\$10) filters (all blue tagged)
PCV valve \$10
Box of oil \$40 (blue tagged)
Ignition wires \$40 (blue tagged)
Wax \$10
Muffler \$200 (blue tagged)

Discount

25 percent on all blue tagged items

Tax

14 percent

Name _____ School _____ Teacher _____

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Solution

First, find the cost of the parts that have the 25 percent discount.

Performance spark plugs \$40 (blue tagged)

Oil (\$6), air (\$8) and gas (\$10) filters (all blue tagged)

PCV valve \$10

Box of oil \$40 (blue tagged)

Ignition wires \$40 (blue tagged)

Turtle wax \$10

Muffler \$200 (blue tagged)

$\$40 + \$6 + \$8 + \$10 + \$40 + \$40 + \$200 = \344

$\$344 \times 0.25 = \86

$\$344 - \$86 = \$258$

The total cost of the discounted parts is \$258. Now you need to add that to the cost of the parts that don't have a discount.

$\$258 + \$10 + \$10 = \278

Don't forget the tax.

$\$278 \times 0.14 = \38.92

$\$278 + \$38.92 = \$316.92$

The customer owes you \$316.92.