**Unit 1: The Stock Market** – Application Problems (part I)

*Mathematical Practice #1: Make sense of problems & persevere in solving them*

Ambrea bought 800 shares of Wild Oats Market Inc. (OATS) at $16.65 per share on September 21, 2006. On September 28, 2006, she sold 400 shares after its price had dropped to $16.52. She bought 300 more shares on October 3, 2006 when the price had fallen to $16.01. She sold all of her OAT stock at $17.09 on October 12, 2006. Each time she made a trade, Jennifer had to pay a 1.5% broker’s fee. How much profit or loss did Ambrea make over the course of the investment? Why does this make sense?

Follow the 4-Step Problem Solving Process:

1. **STATE** the problem. (*What’s the question?)*

2. Make a **PLAN**. *(How will you solve the problem? What math tools do you need?)*

3. **DO** the work. *(Carry out your plan.)*

4. **CONCLUDE**. *(Give your conclusion in the real-world problem context.)*

Carlos bought 3850 shares of DreamWorks Animation SKG, Inc. (DWA) in March for $26.45 per share. He paid a 2% broker’s fee on the transaction. The table below shows the closing prices for the last day in each month since Carlos bought the stock. Carlos checks his portfolio value on the last day of every month and decides whether to sell his shares or hold onto them. When should Carlos consider selling his shares (remember, he must pay a 2% broker’s fee on the sale transaction)? Provide convincing evidence.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Month** | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| **Close** | $26.45 | $27.10 | $25.95 | $22.90 | $20.94 | $21.19 | $24.91 | $26.45 | $29.23 | $29.49 |

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