Brief Exercise 8-2

Given:
35,000 helmets manufactured
22,500 kilograms (kg) of plastic used
Cost of plastic was 171,000
Standard cost card: 0.6 kg of plastic@8/kg

Part 1:
Number of helmets 35,000
Standard kg of plastic/helmet x 0.6
Standard kg of plastic allowed 21,000
Standard cost/kg of plastic x 8
Total standard cost 168,000

Actual Cost versus Standard Cost

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual cost</td>
<td>171,000</td>
</tr>
<tr>
<td>Standard cost</td>
<td>168,000</td>
</tr>
<tr>
<td>Materials Variance (unfavorable)</td>
<td>3,000</td>
</tr>
</tbody>
</table>
Part 2

Actual Quantity of inputs @ actual price

<table>
<thead>
<tr>
<th>Actual Quantity of inputs @ standard price</th>
<th>Standard Quantity allowed for output at standard price</th>
</tr>
</thead>
<tbody>
<tr>
<td>22,500 kg x 8/kg = 180,000</td>
<td>21,000 kg x 8/kg = 168,000</td>
</tr>
</tbody>
</table>

171,000

Price Variance, 9,000 F
Quantity Variance, 12,000 U
Total Variance, 3,000 U

Part 2 – Alternative Solution

Materials Price Variance = Actual Quantity x (Actual Price – Standard Price)
22,500 x (7.60/kg* – 8/kg) = 9,000 F

Materials Quantity Variance = Standard Price x (Actual Quantity – Standard Quantity)
8/kg x (22,500 kg – 21,000 kg) = 12,000 U

*171,000 ÷ 22,500 kg = 7.60/kg