## Question 1

## 2011 Movie Releases



- Comedy

Action

- Horror - Sci-Fi
- Crime

Indie

The graph above is a circle graph with 6 sectors, each representing a movie genre, depicting the 565,725 movies released in 2011.

Use the drop-down menus to fill in the blanks in each of the following statements based on the information given by the graph.

There were $\qquad$ comedy movies released in 2011 as/than there were Sci-Fi, Indie, and Horror movies combined.
A. More
B. Fewer
C. The same number

In 2011, approximately $\qquad$ comedies were released than the average number of movies released by the two lowest-ranking sectors.
A. 147,259 more
B. 147,088 more
C. 141,439 more
D. 107,495 more

## Question 2



The chart above shows the frequency distribution of 4 - to 8 -axle and commercial vehicles at different times during a weekday. All vehicles that did not have 4-8 axles have 2 axles.

Use the drop-down menus to fill in the blanks in each of the following statements based on the information given by the graph.

Of the $\qquad$ total vehicles going through the tunnel from 7am to 10am, 410 were commercial vehicles with 4-8 axles and 212 were non-commercial vehicles with 2 axles.
A. 781
B. 979
C. 1191

There was approximately $\qquad$ percent more commercial vehicle traffic from midnight to 5am than there was from 5am to 7am.
A. 1
B. 25
C. 34
D. 223

## Question 3

## 2011 Investment Portfolio



The chart above shows the percentages of a fund invested in different commodities, split up into 3 agricultural products (corn, wheat and potatoes) and 3 energy sources (oil, gas and solar). The total value of the fund on December 31, 2010 was $\$ 12,090$.00.

Use the drop-down menus to fill in the blanks in each of the following statements based on the information given by the graph.

The amount invested in solar energy is $\qquad$ percent greater than the amount invested in corn.
A. 8.1
B. 28.3
C. 39.5
D. 139.5

The fund has 45.9 shares invested in oil and the same number invested in gas. The difference between the average cost-per-share for oil and gas shares is $\qquad$ .
A. $\$ 0.49$
B. $\$ 16.54$
C. $\$ 33.55$
D. $\$ 50.11$

## Question 4

## Tab 1: Memo

Following is a memo between Rachel Gutierrez, head of the Admissions office for Syrandon College for 20 years, and Vice President Alyson Sho, who was brought in to Syrandon after short administrative tenures at two state universities.

## To: Alyson Sho, Vice President; Syrandon College

From: Rachel Gutierrez, Head of Admissions; Syrandon College
I have some sobering news. I have just run the numbers and our in-state undergraduate admissions are down by $25 \%$ from 2010. As you may know, many of our in-state freshmen are legacies who follow their parents or older siblings to Sarandon. Since, by contrast, out-of-state undergraduate admissions tend to be transferred into Syrandon, our strongest relationships are with our in-state undergraduate students, and the majority of our alumni were in-state undergraduates. I fear this lowered percentage will have a noticeable impact on our alumni sponsorship down the road, which is crucial, as we are a small private college dependent upon our alumni to fund special projects not covered by tuition.

I recommend a more aggressive recruiting program, so we can hopefully make up the missed numbers of in-state graduates next year. I am attaching a graphic to better illustrate the breakdown of our admissions for 2011.

## Tab 2: Graph



## Tab 3: Response

The below is an excerpt of Vice President Alyson Sho's response.
To: Rachel Gutierrez, Head of Admissions; Syrandon College
From: Alyson Sho, Vice President; Syrandon College
Even if there is a smaller percentage of in-state graduate students this year, our overall number of students is not appreciably different from last year. We are not suffering from an abundance of empty spaces. It has been my experience from my tenure at other schools that when a particular demographic of student decreases, others will rush to fill their places. This is especially true of foreign students. At Western State University, for example, we had to turn away $50 \%$ of our qualified foreign applicants. Those are students who would be glad to get in to a qualified school such as Syrandon.

1. For 2011, if foreign students comprise exactly $1 / 8$ of the number of out-of-state undergraduates, indicate which could be the number of in-state undergraduates.

| $\begin{aligned} & \text { Ye } \\ & \mathrm{s} \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathbf{o} \end{aligned}$ | Statements |
| :---: | :---: | :---: |
|  |  | 200 |


|  |  | 330 |
| :--- | :--- | :--- |
|  |  | 1320 |

## Question 5

Fact A: After instituting a proposal to boost crop production by increasing fertilizer by $25 \%$, cabbage farmers found, to their surprise, that their cabbage harvest yielded roughly the same volume of crops after the increase as before the increase.

Fact B: The fertilizer used has always helped to increase plant production at the applied dosage, even when given to crops hampered by pests or disease.

Choose the statements that can be most properly inferred from Fact A and Fact B, respectively.

| Fact <br> A: | Fact <br> B: | Statements |
| :--- | :--- | :--- |
|  |  | The proposal was instituted at a time when cabbage crop production <br> was already the highest it had ever been. |
|  |  | The farmers did not anticipate the lack of response of the cabbage crop <br> to the larger amount of fertilizer. |
|  | This was not the only time the farmers had attempted to increase <br> cabbage crop production by applying larger amounts of fertilizer. |  |
|  |  | The farmers relied entirely on the fertilizer to produce an increase. |
| There are at least some plant illnesses that have not resulted in a drop |  |  |
| in crop production when mitigated by the fertilizer. |  |  |

