## Question 1



The graph above is a bar graph with 7 bars, each representing the number of complaints received by a telephone company from its new customers. The customers received follow-up calls anywhere from 1 to 7 weeks after placing their orders. The customers were grouped by follow-up call timing, and the number of complaints was recorded for each group over a one-year period. Select the best answer to fill in the blanks in each of the statements below based on the data shown in the graph.

The relationship between the number of complaints and the number of weeks before the call is $\qquad$ .
A. zero
B. negative
C. positive

The number of complaints made by customers who received a followup call 1 week after placing their orders is closest to $\qquad$ \% of the number of complaints made by customers who received a follow-up call 7 weeks after placing their orders.
A. 0
B. 15
C. 30
D. 50
E. 75

Based on the information shown in the graph, if the company wishes to limit its complaints to 40 or fewer per year, it should make follow-up calls no later than $\qquad$ weeks after customers place their orders.
A. 4
B. 3
C. 2
D. 1

## Question 2

Sort By: $\quad \checkmark$

| Team Name | Year <br> Founded | Payroll <br> (millions of \$) | \% of Games Won <br> (previous season) | \# of <br> Championships | City Size <br> (in millions) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Crocodiles | 2004 | 45.6 | $54 \%$ | 0 | 2.3 |
| Dragons | 1987 | 45.3 | $43 \%$ | 0 | 4.2 |
| Orcas | 1918 | 54.6 | $47 \%$ | 6 | 3.4 |
| Piranhas | 1973 | 23.4 | $61 \%$ | 2 | 1.1 |
| Tidal Waves | 1912 | 35.4 | $65 \%$ | 3 | 1.3 |
| Tremors | 1932 | 54.2 | $63 \%$ | 5 | 2.8 |
| Volcanoes | 1945 | 43.5 | $59 \%$ | 3 | 2.1 |

The table gives information on the 7 teams in the Western Division of a professional baseball league. In addition to listing the year each team was founded, the table provides information on the team's payroll (in millions of dollars), the percentage of games each team won the previous season, the number of championships each team had won (as of 2012), and the size of each team's home city (in millions of people).

Consider each of the following statements about the baseball league. For each statement indicate whether the statement is supported based on the information provided in the table.

| Ye | $\mathbf{N}$ | Statements |
| :--- | :--- | :--- |
| $\mathbf{s}$ | $\mathbf{0}$ |  |


|  | The oldest team in the league also won the greatest percentage of games the <br> previous season. |
| :--- | :--- | :--- |
|  | The team with the median payroll also had the median winning percentage <br> the previous season. |
|  | The newest team in the league also had the median home city population. |

## Question 3

Two high-speed printers are printing 140 annual reports of 81 pages each. Printer A prints at a rate that is $25 \%$ faster than Printer B's rate, and it takes 3 hours for both printers working together to complete the job.

Identify the per-minute page rate at which each printer prints.

| Printer A | Printer B |  |
| :--- | :--- | :--- |
|  |  | 28 |
|  |  | 35 |
|  |  | 42 |
|  |  | 52. <br> 5 |
|  |  | 84 |
|  |  | 105 |

## Question 4



The Venn diagram above represents attendance at a Global Domination, Inc. meeting. All the executives in attendance were either C-level, involved in finance, or both. The numbers in the Venn diagram represent those executives who are exclusively C-level or exclusively involved in finance. Any executives who are both C-level and involved in finance are not represented in the Venn diagram.

Besides the executives, there were also a number of non-financial B-level managers in attendance, and total meeting attendance was 48 people. There were no other meeting attendees. Half of the executives involved in finance but not C-level were late to the conference due to a meeting of the finance division. They were the only late attendees.

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

If there were 8 non-financial B-level managers in attendance, the probability that a randomly chosen person from the meeting is a C -level finance executive is $\qquad$ .
A. 1 in 12
B. 1 in 11
C. 1 in 6
D. 1 in 4
$\qquad$ percent of the attendees were late.
A. 10
B. 20
C. 27
D. 54

## Question 5

Professor: Neither good study habits nor innate intelligence is enough alone to ensure a student's good performance in the economics class; to guarantee success, a student needs both. Good study habits are useless if the student lacks the ability to grasp concepts in class and discern which information to research, and innate intelligence cannot guarantee good performance unless regularly exercised and applied through organized and diligent study methods.

Choose one statement that must be true, and one statement that must be false, based on the professor's statements above.

| Must <br> be true | Must be <br> false | Statements |
| :--- | :--- | :--- |
|  |  | A student will have poor performance in the economics class <br> without both good study habits and innate intelligence. |
|  | A student cannot have good performance in the economics class <br> without good study habits. |  |
|  | If a student has the ability to grasp concepts in class, then that <br> student may be able to achieve good performance as long as she <br> applies regular and diligent study methods. |  |
|  | A student is guaranteed good performance in the economics class <br> as long as that student has the abilities to both grasp concepts in <br> class and discern which information to research. |  |
|  | There are at least some students with innate intelligence who <br> achieve good performance without regular study habits. |  |
|  |  |  |

