6.1.1.1 SAT shall correctly calculate the mean of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 1 |
| System | Dataset Calculations |
| Name | Calculate Mean |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the mean of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.1.2 SAT shall correctly calculate the median of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 2 |
| System | Dataset Calculations |
| Name | Calculate Median |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the median of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.1.3 SAT shall correctly calculate the mode of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 3 |
| System | Dataset Calculations |
| Name | Calculate Mode |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the mode of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.2.1 SAT shall correctly calculate the minimum of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 4 |
| System | Dataset Calculations |
| Name | Calculate Minimum |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the minimum of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.2.2 SAT shall correctly calculate the maximum of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 5 |
| System | Dataset Calculations |
| Name | Calculate Maximum |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the maximum of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.2.3 SAT shall correctly calculate the range of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 6 |
| System | Dataset Calculations |
| Name | Calculate Range |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the range of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.2.4 SAT shall correctly calculate the sample standard deviation of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 7 |
| System | Dataset Calculations |
| Name | Calculate Standard Deviation |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the standard deviation of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.2.5 SAT shall correctly calculate the population standard deviation of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 8 |
| System | Dataset Calculations |
| Name | Calculate Population Standard deviation |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the population standard of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.3.1 SAT shall correctly calculate the outliers of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 9 |
| System | Dataset Calculations |
| Name | Calculate Outliers |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the outliers of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.3.2 SAT shall correctly calculate least-squares regression of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 10 |
| System | Dataset Calculations |
| Name | Calculate Least-Squares Regression |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the least-squares regression of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.3.3 SAT shall correctly calculate the residuals of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 11 |
| System | Dataset Calculations |
| Name | Calculate Residuals |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the residuals of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.3.4 SAT shall correctly calculate the r2 value of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 12 |
| System | Dataset Calculations |
| Name | Calculate r2 value |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the r2 value of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.4.1 SAT shall correctly calculate the population mean of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 13 |
| System | Dataset Calculations |
| Name | Calculate The Population Mean |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the population mean of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.4.2 SAT shall correctly calculate *z* critical values from a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 14 |
| System | Dataset Calculations |
| Name | Calculate The Z Critical values |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the z critical values of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.4.3 SAT shall correctly calculate *t* critical values from a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 15 |
| System | Dataset Calculations |
| Name | Calculate The T Critical Value |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the t critical values of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.4.4 SAT shall correctly calculate *p* critical values from a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 16 |
| System | Dataset Calculations |
| Name | Calculate P Critical Values |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the p critical values of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.4.5 SAT shall correctly calculate the margin of error from a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 17 |
| System | Dataset Calculations |
| Name | Calculate Margin of Error |
| Primary Actor(s) | User |
| Description | The user enters, or selects, a data set and the SAT calculates the margin of error of the data set. |
| Preconditions | The user must select or enter a data set |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters a data set 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.5.1 SAT shall correctly calculate the binomial probability of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 18 |
| System | Dataset Calculations |
| Name | Calculate Binomial Probability |
| Primary Actor(s) | User |
| Description | The user enters the correct probabilities and the SAT calculates the binomial probability of the outcomes. |
| Preconditions | The user must select of enter the probability outcomes |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters the success probabilities 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.5.2 SAT shall correctly calculate probability addition, the rule of addition, of a data set and display it to

the user.

|  |  |
| --- | --- |
| Number | 19 |
| System | Dataset Calculations |
| Name | Calculate Probability Addition |
| Primary Actor(s) | User |
| Description | The user enters the probabilities and the SAT calculates the probability addition of the probabilities |
| Preconditions | The user must select or enter the probabilities |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters probabilities 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.5.3 SAT shall correctly calculate probability multiplication, the rule of multiplication, of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 20 |
| System | Dataset Calculations |
| Name | Calculate Probability Multiplication |
| Primary Actor(s) | User |
| Description | The user enters the probabilities and the SAT calculates the probability multiplication |
| Preconditions | The user must select or enter the probabilities |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters the probabilities 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.5.4 SAT saal correctly calculate the probability subtraction, the rule of subtraction, of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 21 |
| System | Dataset Calculations |
| Name | Calculate Probability Subtraction |
| Primary Actor(s) | User |
| Description | The user enters the probabilities and the SAT calculates the probability subtraction. |
| Preconditions | The user must select of enter the probabilities |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters the probabilities 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.5.5 SAT shall correctly calculate the conditional probability of a data set and display it to the user.

|  |  |
| --- | --- |
| Number | 22 |
| System | Dataset Calculations |
| Name | Calculate Conditional Probability |
| Primary Actor(s) | User |
| Description | The user enters the probabilities and the SAT calculates the conditional probability. |
| Preconditions | The user must select of enter the probabilities |
| Post-conditions | The program calculates and displays the result to the user |
| Trigger | The user clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters the probabilities 4. The user selects calculates 5. The program calculates |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |

6.1.7 Calculator input correction

|  |  |
| --- | --- |
| Number | 23 |
| System | Dataset Calculations |
| Name | Calculator Input Correction |
| Primary Actor(s) | The User |
| Description | Input correction is automatic output of user input errors, such as divide by zero. |
| Preconditions | The user must have entered data into the calculator |
| Post-conditions | The SAT outputs errors and error types to the user |
| Trigger | User clicks the calculate button |
| Basic Flow | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user enters the data set 4. The user selects calculates 5. The calculator runs into an arithmetic error 6. The program output the error |
| Alternate Flow(s) | 1. The user selects a formula to calculate 2. The calculator for the formula appears 3. The user selects a data set or data file from external source 4. The user selects calculate 5. The calculator runs 6. The program calculates |
| Exception Flow(s) | E1.1 The data set or data file does not exist  E1.2 The system displays an error message to the user  E2.1 The data set of data file isn’t compatible for the requested calculation  E2.2 The program displays an error message to the user  E3.1 The user decides to cancel the calculation  E3.2 The calculator window closes |
| Extensions | The user selects multiple data sets to compare |