Design: Pseudocode and Test Table for Birthday Gifts Project

CREATE a driver class Birthday

DEFINE and INITIALIZE variables: childName, childAge, toyChoice, response, card, balloon, order number, total

DISPLAY welcome message in a dialog box

DISPLAY REQUEST name of child

READ name of child

DISPLAY REQUEST age of child

READ age of child

DISPLAY REQUEST toy choice

READ toy choice

VALIDATE toy choice

If toy choice is not appropriate, DISPLAY this fact and ask user if he/she wants to cancel the toy request.

READ response

If “yes”, go back to “DISPLAY REQUEST for name of child” step

If “no”, calculate total and proceed

DISPLAY request for user to enter whether a card should be added to the gift

READ card response and update total

DISPLAY “The gift for” name/age “is” gift choice/cost of THIS gift

DISPLAY request for user to enter whether a balloon should be added to the gift

READ balloon response and update total

DISPLAY “The gift for” name/age “is” gift choice/cost of THIS gift

DISPLAY question asking user whether he or she wants to add another gift

If “yes”, go back to “DISPLAY REQUEST for name of child” step

If “no”, proceed.

GENERATE random 5-digit number for order number

DISPLAY “The total cost of your order is $total. Order number #”

DISPLAY programmer name

Test Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case | Input | Actual Input | Expected Output | Actual Output | Did the test pass? |
| 1 | Name: Anne  Age: 2  Toy: plushie  Card: yes  Balloon: no  Another toy: no | Name: Anne  Age: 2  Toy: plushie  Card: yes  Balloon: no  Another toy: no | The gift for Anne 2 years old is plushie $27.95 | The gift for Anne 2 years old is plushie $27.95  Order Number:  22152 | Yes |
| 2 | Name: Bob  Age:6  Toy: blocks  (invalid)  Re-choose?:no  Card: no  Balloon: yes  Another toy: no | Name: Bob  Age:6  Toy: blocks  (invalid)  Re-choose?:no  Card: no  Balloon: yes  Another toy: no | The gift for Bob 6 years old is blocks $26.00 | The gift for Bob 6 years old is blocks $26.00  Order Number:  61025 | Yes |
| 3 | Name: Caitlyn  Age: 3  Toy: book  (invalid)  Re-choose?: yes  Name: Caitlyn  Age: 3  Toy: plushie  Re-choose?: no  Card: yes  Balloon: yes  Another toy: no | Name: Caitlyn  Age: 3  Toy: book  (invalid)  Re-choose?: yes  Name: Caitlyn  Age: 3  Toy: plushie  Re-choose?: no  Card: yes  Balloon: yes  Another toy: no | The gift for Caitlyn 3 years old is plushie $33.95 | The gift for Caitlyn 3 years old is plushie $33.95  Order Number:  31368 | Yes |
| 4 | Name: David  Age:7  Toy: book  Card: yes  Balloon: no  Another toy: yes  Name: Edward  Age:4  Toy: blocks  Card: yes  Balloon: no  Another toy: no | Name: David  Age:7  Toy: book  Card: yes  Balloon: no  Another toy: yes  Name: Edward  Age:4  Toy: blocks  Card: yes  Balloon: no  Another toy: no | The gift for David 7 years old is book $17.95  The gift for Edward 4 years old is book $22.95  Total: $40.90 | The gift for David 7 years old is book $17.95  The gift for Edward 4 years old is book $22.95  Total: $40.90  Order Number:  98542 | Yes |