

# Tool Store Test Inference

I want you to inspect the tool store specification. Observe the testing requirements, I want you to infer what the output of each test case input should be along with a short reasoning why.

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## RouteLLM

Below is the inferred expected outcome for each required test case, including reasoning and calculated values.

Dates formatted mm/dd/yy.

Currency rounded **half up to cents**.

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### Test 1

#### Input

- Tool code: JAKR (Jackhammer – \$2.99)
- Checkout: 9/3/15
- Rental days: 5
- Discount: **101%**

### Expected Result

Exception thrown

### Reasoning

Discount percent must be between **0–100** inclusive.  
101% violates validation rules.

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## Test 2

### Input

- Tool code: LADW (Ladder – \$1.99)
- Checkout: 7/2/20
- Rental days: 3
- Discount: 10%

### Step 1: Due Date

7/2/20 + 3 days → **7/5/20**

### Step 2: Chargeable Days


Charge window: **7/3–7/5**

Holiday:

- July 4, 2020 fell Saturday
- Observed Friday **7/3/20**

Ladder charges:

- Weekday 
- Weekend 
- Holiday 

Date	Day	Charge?	Reason
7/3	Fri		Observed Holiday
7/4	Sat		Weekend
7/5	Sun		Weekend

Charge days = **2**

### Step 3: Charges

Pre-discount =  $2 \times 1.99 = \mathbf{\$3.98}$   
Discount = 10%  $\rightarrow 0.398 \rightarrow \mathbf{\$0.40}$   
Final charge =  $3.98 - 0.40 = \mathbf{\$3.58}$

## Expected Output Values

- Charge days: 2
  - Pre-discount: \$3.98
  - Discount: \$0.40
  - Final charge: **\$3.58**
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## Test 3

### Input

- Tool code: CHNS (Chainsaw – \$1.49)
- Checkout: 7/2/15
- Rental days: 5
- Discount: 25%

## Step 1: Due Date




$7/2/15 + 5 \rightarrow \mathbf{7/7/15}$

## Step 2: Charge Window

7/3–7/7

July 4, 2015 fell Saturday  
Observed Friday **7/3/15**

Chainsaw charges:

- Weekday 
- Weekend 
- Holiday 

Date	Charge?	Reason
7/3	✓	Holiday (observed)
7/4	✗	Weekend
7/5	✗	Weekend
7/6	✓	Weekday
7/7	✓	Weekday

Charge days = 3

### Step 3: Charges

Pre-discount =  $3 \times 1.49 = \$4.47$

Discount = 25% → 1.1175 → **\$1.12**

Final =  $4.47 - 1.12 = \$3.35$

### ✓ Expected Output Values

- Charge days: 3
  - Pre-discount: \$4.47
  - Discount: \$1.12
  - Final charge: **\$3.35**
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### ✓ Test 4

#### Input

- Tool code: JAKD (Jackhammer – \$2.99)
- Checkout: 9/3/15
- Rental days: 6
- Discount: 0%

### Step 1: Due Date

9/3/15 + 6 → **9/9/15**

## Step 2: Charge Window

9/4–9/9

Labor Day 2015 = **9/7/15**

Jackhammer charges:

- Weekday 
- Weekend 
- Holiday 

Date	Charge?	Reason
9/4		Weekday
9/5		Weekend
9/6		Weekend
9/7		Labor Day
9/8		Weekday
9/9		Weekday

Charge days = **3**

## Step 3: Charges

Pre-discount =  $3 \times 2.99 =$  **\$8.97**

Final = **\$8.97**

### Expected Output Values

- Charge days: 3
  - Pre-discount: \$8.97
  - Discount: \$0.00
  - Final charge: **\$8.97**
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## Test 5

### Input

- Tool code: JAKR (Jackhammer – \$2.99)
- Checkout: 7/2/15
- Rental days: 9
- Discount: 0%

### Step 1: Due Date

7/2/15 + 9 → **7/11/15**

### Step 2: Charge Window

7/3–7/11

Observed Independence Day 2015 = **7/3**

Date	Charge?	Reason
7/3	✗	Holiday
7/4	✗	Weekend
7/5	✗	Weekend
7/6	✓	Weekday
7/7	✓	Weekday
7/8	✓	Weekday
7/9	✓	Weekday
7/10	✓	Weekday
7/11	✗	Weekend

Charge days = **5**

## Step 3: Charges

Pre-discount =  $5 \times 2.99 =$  **\$14.95**

Final = **\$14.95**

### Expected Output Values

- Charge days: 5
  - Pre-discount: \$14.95
  - Discount: \$0.00
  - Final charge: **\$14.95**
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### Test 6

#### Input

- Tool code: JAKR (Jackhammer – \$2.99)
- Checkout: 7/2/20
- Rental days: 4
- Discount: 50%

## Step 1: Due Date

7/2/20 + 4 → **7/6/20**

## Step 2: Charge Window

7/3–7/6

Observed Independence Day 2020 = **7/3**

Date	Charge?	Reason
7/3	✗	Holiday
7/4	✗	Weekend
7/5	✗	Weekend
7/6	✓	Weekday

Charge days = 1

### Step 3: Charges

Pre-discount =  $1 \times 2.99 = \$2.99$

Discount = 50%  $\rightarrow 1.495 \rightarrow \$1.50$

Final =  $2.99 - 1.50 = \$1.49$

### ✓ Expected Output Values

- Charge days: 1
  - Pre-discount: \$2.99
  - Discount: \$1.50
  - Final charge: **\$1.49**
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### ✓ Summary Table

Test	Result
Test 1	Exception (invalid discount 101%)
Test 2	Final: <b>\$3.58</b>
Test 3	Final: <b>\$3.35</b>
Test 4	Final: <b>\$8.97</b>
Test 5	Final: <b>\$14.95</b>
Test 6	Final: <b>\$1.49</b>

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If you'd like, I can also format these exactly as they would print in the required Rental Agreement console output format.

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