

Q1: "gloves" belongs to the property named "item" of the second element of the array receipt. So the answer is E.

```
var receipt = [
  { item: "coat", price: 139.99 },
  { item: "gloves", price: 44.99 },
  { item: "hat", price: 22.54 }
];
```

How do we access "gloves"?

- A) receipt.gloves D) receipt[1][0]
B) receipt[0].gloves E) receipt[1].item
C) receipt[0][1]

Ex1: The default discount for items is 0, and 0.2 for items over \$50. We write every object in a format of "obj", and then use `result.push(obj)` to add them into the array named "result".

```
var applyDiscount = function (arr) {
  //Input : { item: "coat", origPrice: 139.99,
  // [
  //   { item: "coat", price: 139.99},
  //   ...
  // ]
  //Return :{ item: "coat", origPrice: 139.99,
  // discount: 0.2, newPrice: 111.99, }

  var result = [];
  for (var i=0; i<arr.length; i++){
    var oneItem = arr[i];
    var discount = 0;

    // Discount if price is > $50
    if (oneItem.price > 50){
      discount = 0.2;
    }

    var obj = {
      item : oneItem.item,
      origPrice: oneItem.price,
      discount: discount,
      newPrice: (oneItem.price * (1-discount))
    };

    result.push(obj);
  }
  return result;
};

var receipt = [
  { item: "coat", price: 139.99 },
  { item: "gloves", price: 44.99 },
  { item: "hat", price: 22.54 }
];

console.log( applyDiscount(receipt) );
```

```
Run Session
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>
[ { item: 'coat', origPrice: 139.99, discount: 0.2,
  newPrice: 111.99200000000002 },
  { item: 'gloves', origPrice: 44.99, discount: 0,
  newPrice: 44.99 },
  { item: 'hat', origPrice: 22.54, discount: 0, newPrice:
  22.54 } ]
>
```

Ex2: We use a function “helper” to help us find the cheapest price in each object of the array “receipt”.

Then similar to Ex1, use array “result” to store the new objects.

```
var helper = function (arr) {
  var cheapest = arr[0];
  for (var i=0; i<arr.length; i++)
    if (arr[i] < cheapest){
      cheapest = arr[i];
    }

  return cheapest;
};

var receipt = [
  { item: "coat",
    prices: [139.99,129.99,149.99] },
  { item: "gloves",
    prices: [44.99,52.99,39.99] },
  { item: "hat",
    prices: [22.54,39.99,34.99] }
];

var result = [];
for (var i=0; i<receipt.length; i++){
  var anItem = receipt[i];
  var cheapestPrice = helper(anItem.prices);
  var obj = {
    item: anItem.item,
    cheapestPrice: cheapestPrice
  };
  result.push(obj);
}

console.log(result);
```



Run Session

```
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[ { item: 'coat', cheapestPrice: 129.99 },
  { item: 'gloves', cheapestPrice: 39.99 },
  { item: 'hat', cheapestPrice: 22.54 } ]
```