## Lesson 10: What Are Percentages?

### 10.1: Dollars and Cents

Find each answer mentally.

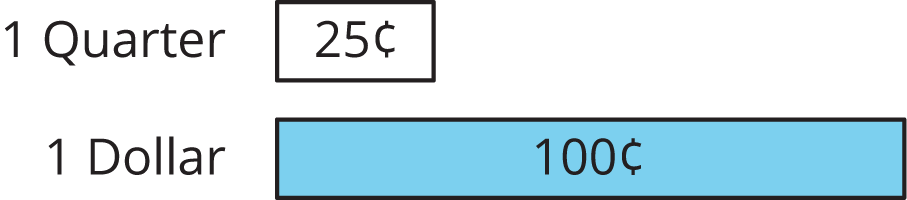
1. A sticker costs 25 cents. How many dollars is that?
2. A pen costs 1.50 dollars. How many cents is that?
3. How many cents are in one dollar?
4. How many dollars are in one cent?

### 10.2: Coins

1. Complete the table to show the values of these U.S. coins.

* 
* ​

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| * coin | * penny | * nickel | * dime | * quarter | * half dollar | * dollar |
| * value (cents) |  |  |  |  |  |  |

* The value of a quarter is 25% of the value of a dollar because there are 25 cents for every 100 cents.
* 

1. Write the name of the coin that matches each expression.
   * 25% of a dollar
   * 5% of a dollar
   * 1% of a dollar
   * 100% of a dollar
   * 10% of a dollar
   * 50% of a dollar
2. The value of 6 dimes is what **percent** of the value of a dollar?
3. The value of 6 quarters is what percent of the value of a dollar?

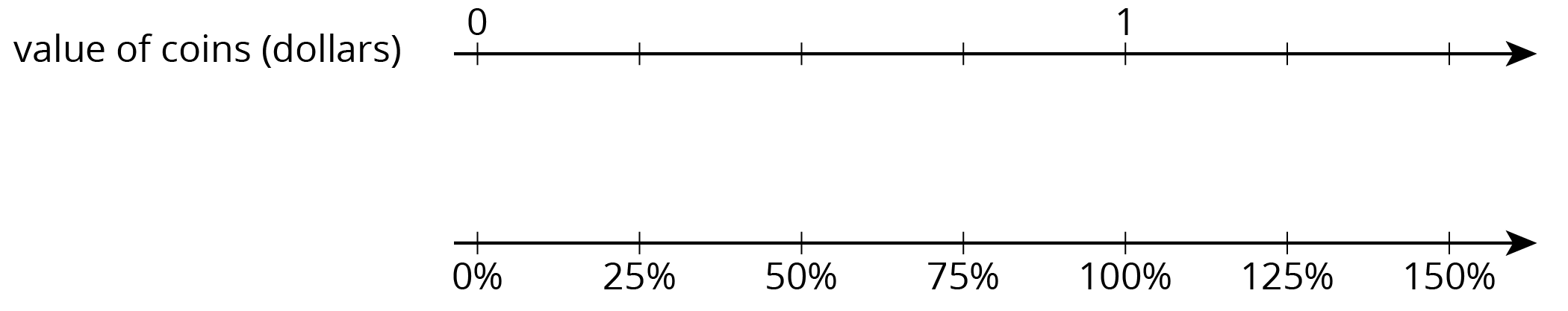
#### Are you ready for more?

Find two different sets of coins that each make 120% of a dollar, where no type of coin is in both sets.

### 10.3: Coins on a Number Line



A $1 coin is worth 100% of the value of a dollar. Here is a double number line that shows this.

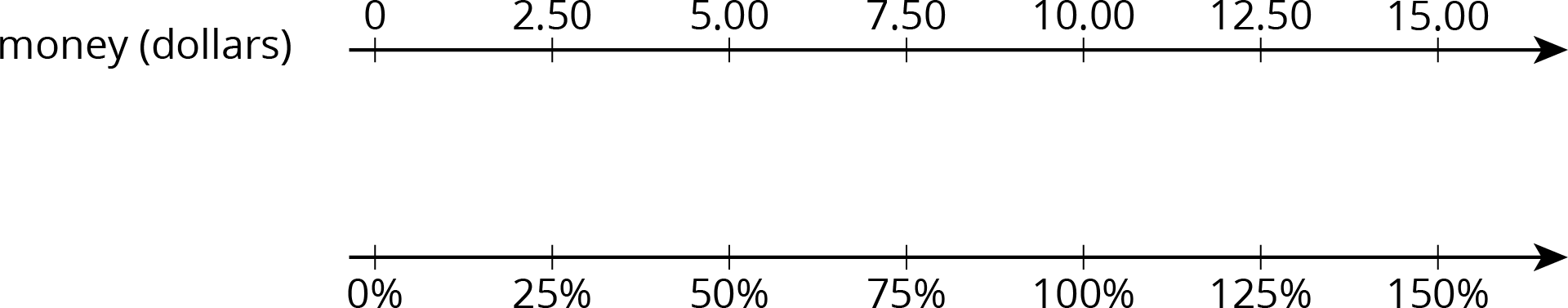


1. The coins in Jada’s pocket are worth 75% of a dollar. How much are they worth (in dollars)?
2. The coins in Diego’s pocket are worth 150% of a dollar. How much are they worth (in dollars)?
3. Elena has 3 quarters and 5 dimes. What percentage of a dollar does she have?

### Lesson 10 Summary

A **percentage** is a *rate per 100*.

We can find percentages of $10 using a double number line where 10 and 100% are aligned, as shown here:



Looking at the double number line, we can see that $5.00 is 50% of $10.00 and that $12.50 is 125% of $10.00.



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