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Unit 3, Lesson 15

# Finding This Percent of That

Let’s solve percentage problems like a pro.

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## 15.1Math Talk: Multiply and Divide

Find the value of each expression mentally.

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## 15.2Audience Size

A school held several evening activities last month—a music concert, a basketball game, literacy night, and a drama play. The music concert was attended by 250 people.

1. Attendance at the basketball game was 30% of attendance at the concert.
2. Attendance at literacy night was 44% of attendance at the concert.
3. Attendance at the drama play was 102% of attendance at the concert.

How many people came to each of these activities? Show your reasoning.

### Are you ready for more?

6% of the people who attended the music concert also attended the basketball game.

What percentage of the people who attended the basketball game also attended the music concert?

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## 15.3Some Percentage for Charity

1. Three music artists plan to donate a percentage of the money they make from selling merchandise.

* Complete the tables to show how much each artist would donate for different amounts of merchandise sales.
* 
  1. Artist A plans to donate 1% of the amount of merchandise sales.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| * + sales ($) | * + 1 | * + 40 | * + 100 | * + 3,200 |  |
| * + donation ($) |  |  |  |  |  |

* 1. Artist B plans to donate 15% of the amount of merchandise sales.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| * + sales ($) | * + 1 | * + 40 | * + 100 | * + 3,200 |  |
| * + donation ($) |  |  |  |  |  |

* 1. Artist C plans to donate 67% of the amount of merchandise sales.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| * + sales ($) | * + 1 | * + 40 | * + 100 | * + 3,200 |  |
| * + donation ($) |  |  |  |  |  |

1. Another artist plans to donate of the money made from selling merchandise. In the table, write an expression for the amount of donation for each sales amount.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| * sales ($) | * 1 | * 40 | * 100 | * 3,200 |  |
| * donation ($) |  |  |  |  |  |

## Lesson 15 Summary

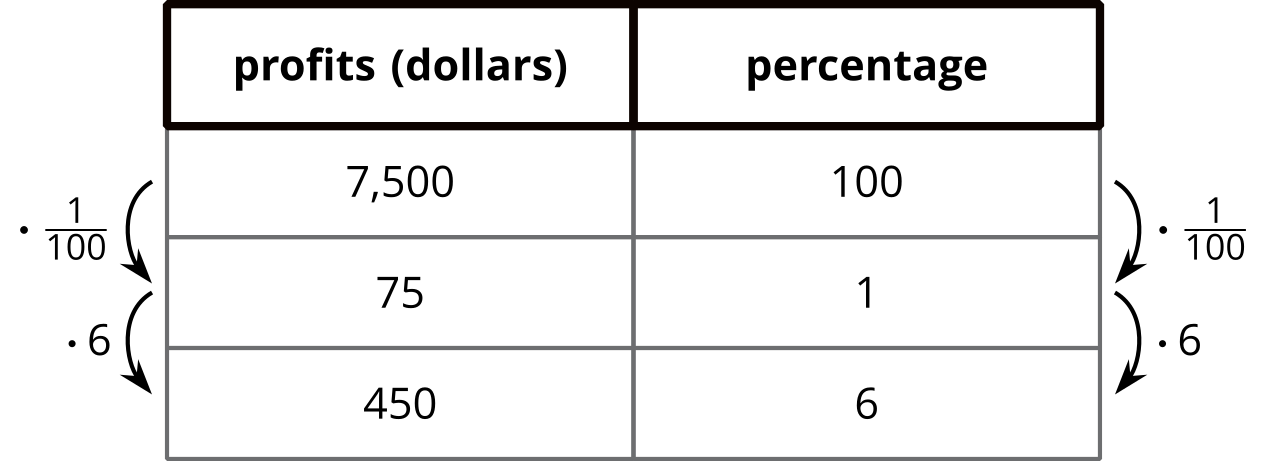
Suppose a business donates 1% of its profits to charity each year. How much would it donate if it made $7,500 in profits?

To find 1% of 7,500, we can multiply 7,500 by or 0.01.



, so the business would donate $75.

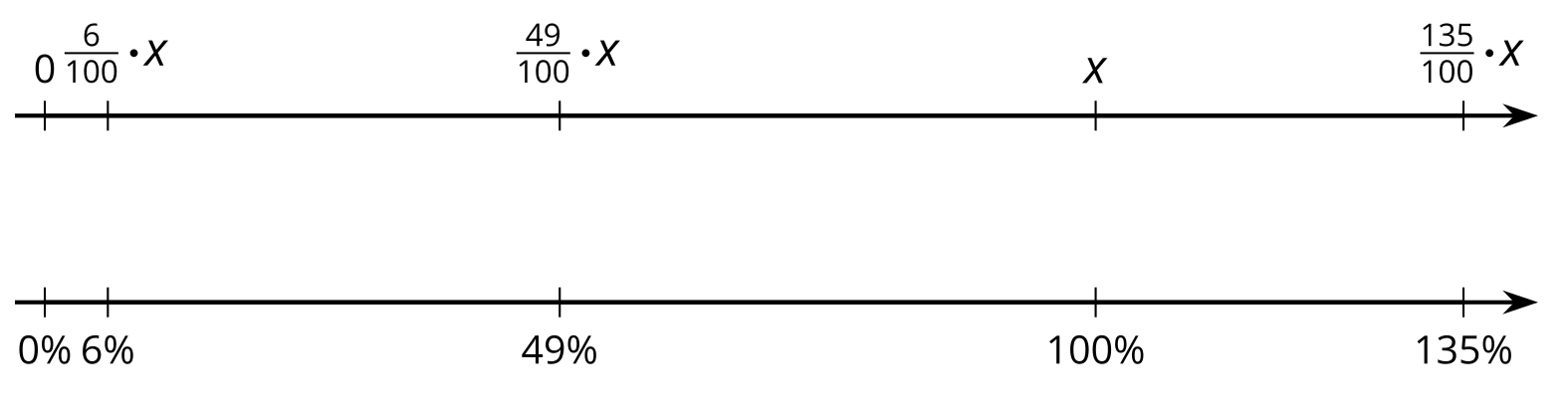
What if the business donates 6% of its profits to charity? Because 6% of 7,500 is 6 times as much as 1% of 7,500, we can calculate or .



, so the business would donate $450.

The same reasoning can help us find 1%, 6%, and other percentages of another number:

* To find 1% of a number, we can multiply that number by or 0.01.
* To find 6% of a number, we can multiply the number by or 0.06.
* To find 49% of a number, we can multiply the number by or 0.49.
* To find 135% of a number, we can multiply the number by or 1.35.



In general, to find of any number, , we can calculate: .