## Lesson 15: Finding This Percent of That

### 15.1: Number Talk: Decimals

Find the value of each expression mentally.

$(0.23)⋅100$

$50÷100$

$145⋅\frac{1}{100}$

$7÷100$

### 15.2: Audience Size

A school held several evening activities last month—a music concert, a basketball game, a drama play, and literacy night. The music concert was attended by 250 people. How many people came to each of the other activities?

1. Attendance at a basketball game was 30% of attendance at the concert.
2. Attendance at the drama play was 140% of attendance at the concert.
3. Attendance at literacy night was 44% of attendance at the concert.

#### Are you ready for more?

50% of the people who attended the drama play also attended the music concert. What percentage of the people who attended the music concert also attended the drama play?

### 15.3: Everything is On Sale

During a sale, every item in a store is 80% of its regular price.

1. If the regular price of a T-shirt is $10, what is its sale price?
2. The regular prices of five items are shown here. Find the sale price of each item.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | * item 1
 | * item 2
 | * item 3
 | * item 4
 | * item 5
 |
| * regular price
 | * $1
 | * $4
 | * $10
 | * $55
 | * $120
 |
| * sale price
 |  |  |  |  |  |

1. You found 80% of many values. Was there a process you repeated over and over to find the sale prices? If so, describe it.
* 
1. Select **all** of the expressions that could be used to find 80% of $x$. Be prepared to explain your reasoning.
* $\frac{8}{100}⋅x$
* $\frac{80}{100}⋅x$
* $\frac{8}{10}⋅x$
* $\frac{4}{10}⋅x$
* $\frac{8}{5}⋅x$
* $\frac{4}{5}⋅x$
* $80⋅x$
* $8⋅x$
* $(0.8)⋅x$
* $(0.08)⋅x$

### Lesson 15 Summary

To find 49% of a number, we can multiply the number by $\frac{49}{100}$ or 0.49.



To find 135% of a number, we can multiply the number by $\frac{135}{100}$ or 1.35.

To find 6% of a number, we can multiply the number by $\frac{6}{100}$ or 0.06.



In general, to find $P\%$ of $x$, we can multiply: $\frac{P}{100}⋅x$



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