Lesson 4: The Relationship of Division and Subtraction

Classwork

Exercise 1

Build subtraction equations using the indicated equations. The first example has been completed for you.

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| Division Equation | Divisor Indicates the Size of the Unit | Tape Diagram | What is $x$, $y$, $z$? |
| $$12÷x=4$$ | $$12-x-x-x-x=0$$ |  | $$x=3$$ |
| $$18÷x=3$$ |  |  |  |
| $$35÷y=5$$ |  |  |  |
| $$42÷z=6$$ |  |  |  |

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| Division Equation | Divisor Indicates the Number of Units | Tape Diagram | What is $x$, $y$, $z$? |
| $$12÷x=4$$ | $$12-4-4-4=0$$ |  | $$x=3$$ |
| $$18÷x=3$$ |  |  |  |
| $$35÷y=5$$ |  |  |  |
| $$42÷z=6$$ |  |  |  |

Exercise 2

Answer each question using what you have learned about the relationship of division and subtraction.

* 1. If $12÷x=3$, how many times would $x$ have to be subtracted from $12$ in order for the answer to be zero? What is the value of $x$?
	2. $36-f-f-f-f=0$. Write a division sentence for this repeated subtraction sentence. What is the value of $f$?
	3. If $24÷b=12$, which number is being subtracted $12$ times in order for the answer to be zero?

Problem Set

Build subtraction equations using the indicated equations.

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|  | Division Equation | Divisor Indicates the Size of the Unit | Tape Diagram | What is $x$,$ y$, $z$? |
| 1. | $$24÷x=4$$ |  |  |  |
| 2. | $$36÷x=6$$ |  |  |  |
| 3. | $$28÷y=7$$ |  |  |  |
| 4. | $$30÷y=5$$ |  |  |  |
| 5. | $$16÷z=4$$ |  |  |  |

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|  | Division Equation | Divisor Indicates the Number of Units | Tape Diagram | What is $x$, $y$, $z$? |
| 1. | $$24÷x=4$$ |  |  |  |
| 2. | $$36÷x=6$$ |  |  |  |
| 3. | $$28÷y=7$$ |  |  |  |
| 4. | $$30÷y=5$$ |  |  |  |
| 5. | $$16÷z=4$$ |  |  |  |