

A. Lesson Context

BIG PICTURE of this UNIT:	<ul style="list-style-type: none"> • What is meant by the term FUNCTIONS and how do we work with them? • mastery with working with basics & applications of linear functions • mastery with working with basics & applications of linear systems • understanding basics of function concepts and apply them to lines & linear systems 		
CONTEXT of this LESSON:	<p>Where we've been</p> <p>In Lesson 2, you practiced with function notations and function representations</p>	<p>Where we are</p> <p>Working further with skills & concepts related to domain and range</p>	<p>Where we are heading</p> <p>Mastery of working with multiple representations of $f(x) = mx + b$</p>

B. Lesson Objectives

- Practice with skills important in mathematically describing domain and range → set notation, number lines, number sets
- Review three main number sets → natural numbers, integral numbers and real numbers
- Find the domain and range of relations as presented in multiple representations

C. Fast Five (Skills Review Focus)

1. $13y + 19 = 6(9 + y) + 14$
 $13y + 19 = 54 + 6y + 14$
 $7y = 49$
 $y = 7$

2. $8a - 2(a + 5) = 2(a - 1)$
 $8a - 2a - 10 = 2a - 2$ $a = 2$
 $6a - 10 = 2a - 2$
 $4a = 8$

3. $8(z + 4) = 5(13 + z)$
 $8z + 32 = 65 + 5z$ $z = 11$
 $3z = 33$

4. $-4x - 18 = -7x + 30$
 $3x = 48$
 $x = 16$

5. $3y + 10.5 = 6.5 + 2.5y$
 $0.5y = -4$
 $y = -8$

6. $(3a - \frac{11}{2} = -\frac{3a}{2} + \frac{25}{2}) \cdot 2$ $a = 4$
 $6a - 11 = -3a + 25$
 $9a = 36$

7. $3^3 - 2^4$
 $27 - 16 = 11$

8. $\frac{1}{2^3} - \frac{1}{3^2}$
 $\frac{1}{8} - \frac{1}{9}$
 $\frac{9}{72} - \frac{8}{72} = \frac{1}{72}$