

# Math 8 LG 13

## LINEAR EQUATIONS



**INTRODUCTION:** Another strength of Mathematics is that we can use linear equations to model situations that happen in the real world. Read more about it on Chapter 10 Opener page 366.



### LEARNING GUIDE EXPECTATIONS:

On the completion of this learning guide you will be able to:

- 1) model and solve one-step equations of the type:  $ax = b$ ,  $x/a = b$
- 2) model and solve two-step equations of the type:  $ax + b = c$ .
- 3) model and solve two-step equations of the type:  $x/a + b = c$ .
- 4) model and solve two-step equations of the type:  $a(x + b) = c$



### EVALUATION:

You are ready to progress to the next learning guide when you can demonstrate your understanding of the above expectations. Please refer to your Mathematics 8 Marks Record Sheet to determine the assessment.



### RESOURCES NEEDED:



Math Links 8 Text



THSS Math 8 Learning Guides and Math 8 Journal Entries Package

### LEARNING ACTIVITIES:



#### Expectation #1: Model and solve one-step equations.



1. [Watch and take notes on instructional video on Solving One Step Equations.](#)



2. In the Math Links 8 text, work through Example 1 on Chapter 10 Section 10.1 pages 371-372. Now complete Chapter 10 Section 10.1 #5, 6, 9, 10 on pages 376-377.

3. In the Math Links 8 text, work through Example 2 on page 373. Now complete #11, 13, 16, 18 on page 377.

4. In the Math Links 8 text, work through example 3 on page 374. Now complete #21-23, 27, 28 on page 378.



5. Read Key Ideas on Chapter 10 Section 10.1 page 375. In your math journal, complete the journal entry for LG13 Expectation 1.



**Expectation #2: Model and solve two-step equations of the type:  $ax + b = c$ .**



1. [Watch and take notes on instructional video on Solving Equations  \$ax+b=c\$ .](#)



2. In the Math Links 8 text, work through Example 2 on Chapter 10 Section 10.2 page 382. Now complete #5, 6 on Chapter 10 Section 10.2 page 385.



3. In the Math Links 8 text, read through the Key Ideas on Chapter 10 Section 10.2 page 384. Now complete Chapter 10 Section 10.2 #7, 8, 9, 10, 12(a & b), 13, 15, 16, 18, 19 on pages 385-387.



4. In your math journal, complete the journal entry for LG13 Expectation 2.



**Expectation #3: Model and solve two-step equations of the type:  $x/a + b = c$ .**



1. [Watch and take notes on instructional video on Solving Equations  \$x/a+b=c\$ .](#)



2. In the Math Links 8 text, work through Example 2 on Chapter 10 Section 10.3 page 390 and the Key Ideas on page 391. Now complete Chapter 10 Section 10.3 #8-11, 13, 14, 17 on pages 392-392.



3. In your math journal, complete the journal entry for LG 13 Expectation 3.



**Expectation #4: Model and solve two-step equations of the type:  $a(x + b) = c$**



1. [Watch and take notes on instructional video on Solving Equations  \$a\(x+b\)=c\$](#)



2. In the Math Links 8 text, work through Example 1 on Chapter 10 Section 10.4 page 395. Now complete Chapter 10 Section 10.4 #4-6 on pages 398.



3. In the Math Links 8 text, work through Example 2 on Chapter 10 Section 10.4 page 396. Now complete Chapter 10 Section 10.4 #8, 9, 11, 12, 14, 16 on pages 398-399.



4. Read the Key Ideas on Chapter 10 Section 10.4 page 397. In your math journal, complete the journal entry for LG13 Expectation 4.

## REVIEW AND CHALLENGE



1. In the Math Links 8 text, complete Chapter 10 Review pages 400 - 401 #1-8, 10, 14, 15, 17, 18, 19, 20, 21, 23.