

TEKS:

6.10(A) model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts (R)

6.10(B) determine if the given value(s) make(s) one-variable, one-step equations or inequalities true (S)

Vertical Standards

7.11(A) model and solve one-variable, two-step equations and inequalities

7.11(B) determine if the given value(s) make(s) one-variable, two-step equations and inequalities true

Big Idea

- Teach substitution first to develop conceptual understand before procedural
- Write an equation/inequality from a model. (i.e. strip diagram, algebra tiles, number line)
- Solve **one step** equation and inequalities
- Include positive fractions and decimals
- Include integers
- Combining like terms
- **Do not teach 2 step (focus on fraction and decimal one step equation)**

Sample STAAR questions:

31 Which equation has a solution of $\frac{2}{3}$ for n ?

A $n - 1 = \frac{1}{3}$

B $16n = 24$

C $15n = 10$

D $1\frac{1}{2} + n = 3$

5 What value of x makes this equation true?

$$-90 = -100 + x$$

A -10

B 10

C -190

D 190

31 Saritha will construct a rectangle that has a height of 4 units and an area of up to 48 square units. Which inequality represents all the possible lengths in units of the bases, b , that Saritha can use to construct this rectangle?

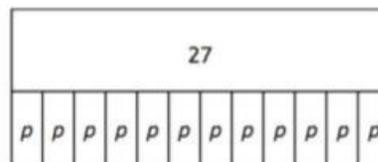
A $b \leq 44$

B $b \geq 52$

C $b \leq 12$

D $b \geq 192$

18 Holly bought a magazine subscription for a year. She paid \$27. Holly wanted to find the price, p , of the subscription each month. She created the model shown to help find this price.



What was the price of the subscription each month?

F \$39.00

G \$2.25

H \$324.00

J \$22.50

<p>Day 1- Substitution 6.10b</p> <ul style="list-style-type: none"> • TE Math p 350 Intro • TE M. math p352 #1 and #2 • Concept Connection • 4 squares 	
<p>Day 2- Equation (Add and Subtract)</p> <p>Video to introduce with models stop at 6:39</p> <ul style="list-style-type: none"> • TE Math 343 (models activity) • Algebra Tiles (CRA) 	
<p>Day 3- Equation (Add and Subtract)</p> <ul style="list-style-type: none"> • fractions and decimals • Combine like terms 	Note: include line =180°
<p>Day 4- Inequality (Add and Subtract)</p> <ul style="list-style-type: none"> • Include number line 	Note: make connection same as equation, but more than one solution * Model same as equation but show in concrete other solutions that are true
Day 5- Equation and Inequality (Add and Subtract)	
<p>Day 6- Equation (Multiply and Divide)</p> <ul style="list-style-type: none"> • Intro video 	
<p>Day 7- Equation (Multiply and Divide)</p> <ul style="list-style-type: none"> • Fractions and decimals 	
<p>Day 8- Inequality (Multiply and Divide)</p> <p>TE Math p340-341 (teaches why to reverse the sign)</p>	
Day 9- Equation and Inequality (Multiply and Divide)	
Day 10/11- Equation/Inequality (all operation)	

Focus for Activities

1. Substitution
2. Model (algebra tiles and strip diagram)
3. Solving equations and inequalities (include integers and positive fraction and decimal)

Activity Options

Angles	Equation/Inequality (all operation	Substitution	Models
Complements Me TE p342 #2 TE Math p 346 #3 Task cards	A Maze M. Math p253 EM p188-190 (LOOP activity) EM 192-194 (Solve w/number line) EM 170-171 Flash cards Mixed operation and write the steps Inequalities w/flip sign	EM p178-180 EM p160-161	EM p162-163 EM p 164-166 Relay models solving w/ models

[great intro video for solving equations](#)
[add and subtract equation \(stop at 6:34\)](#)
[add and subtract equation \(stop 5:28\)](#)- Math dude
[multiply and divide equation](#)
[multiply and divide equation](#)-Math dude
[add and subtract inequality](#)(stop at 2:35)-Math dude
[understanding reversing the sign with inequalities](#) (stop at 3:34)

[Computer practice](#)

*EM=Engaging Math II *M. Math= Motivation Math *G- Google Drive
*TE Math= Motivation Math Teacher Edition

Other videos