Warm-Up

Monday 10/23

please pick up at the front of the room

Turn in at the end of the period

you are going to be given a system of linear equations to solve

RULES

- must use the method of "SUBSTITUTION"
- no calculators
- no decimals
- It may be challenging so please solve to the best of your abilities.

$2x + 5y=1$ $3x - 7y = 2$

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$2x + 5y = 1$

$-5y \quad -5y$

$\frac{2x}{2} = \frac{1-5y}{2}$

$x = \frac{1-5y}{2}$

$3x - \frac{7}{1}\left(\frac{1}{-29}\right) = 2$

$3x - \frac{7}{-29} = 2$ $\quad -7/29$

$-7/29$

$3x = 2 - 7/29$

$3x - 7y = 2$

$3\left(\frac{1-5y}{2}\right) - 7y = 2$

$\frac{3}{1}\left(\frac{1}{2} - \frac{5y}{2}\right)$

$\frac{3}{2} - \frac{15y}{2} - 7y = 2$

$3 - 15y - 14y = 4$

$3 - 29y = 4$

$-3 \qquad -3$

$\frac{-29y}{-29} = \frac{1}{-29}$

$y = \frac{1}{-29}$

$29\left(3x\right) = \left(2 - \frac{7}{29}\right)$

$87x = (2) - 7$

$87x = 58 - 7$

$\frac{87x}{87} = \frac{51}{87}$

$x = \frac{51}{87} = 17/29$

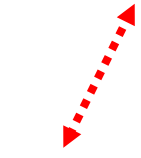
Learning Target:

rewriting expressions into equivalent forms

CHAPTER 3

Monday
10/23

Equivalent Expressions



NOTES

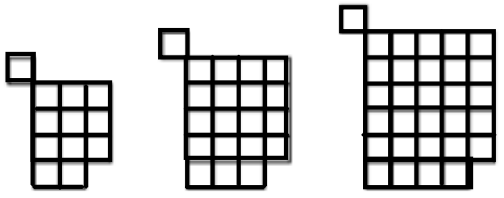


Figure 1 Figure 2 Figure 3

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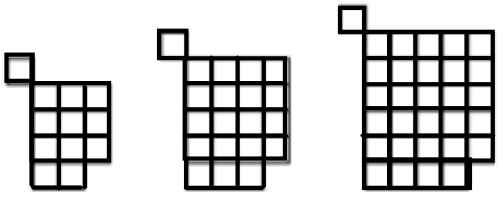

Figure 1 Figure 2 Figure 3

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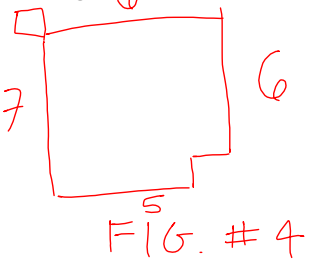


FIG. #4

With your group come up with a DESCRIPTION of what the 100th figure would look like?

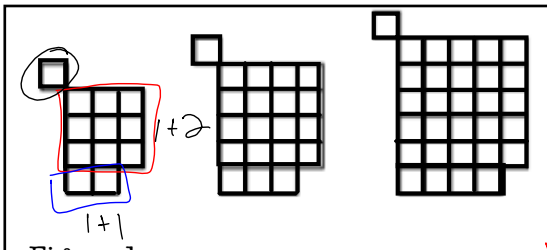


Figure 1 Figure 2 Figure 3

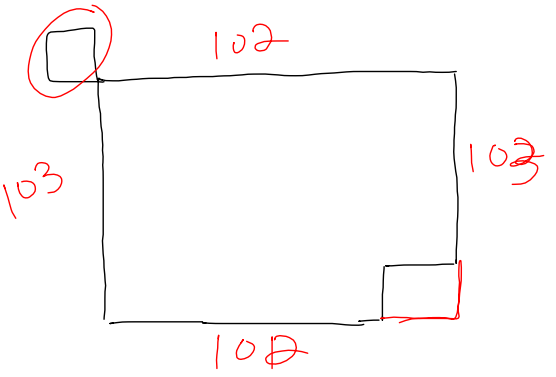


Figure 100

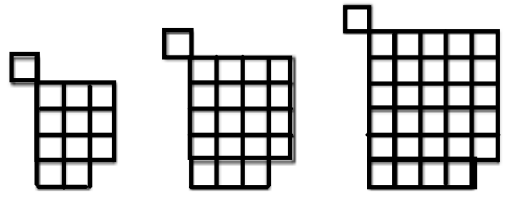
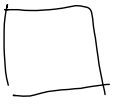


Figure 1 Figure 2 Figure 3



A = L × W

X = Fig #

Write down as many expressions as you can to represent the AREA

(# of tiles) for any figure #.

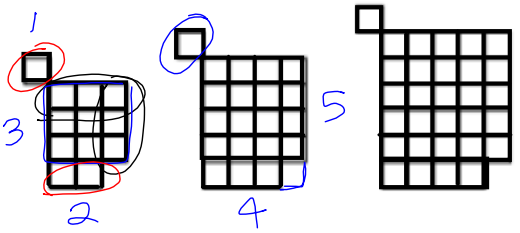
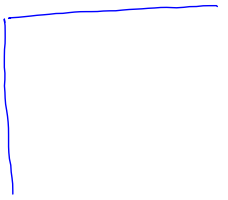


Figure 1 Figure 2 Figure 3

expressions to represent area



$(x+2)(x+2) + (x+2)$

$(x+2)^2 + (x+2)$

$(x+2)(x+3)$

What figure # has 600 tiles?

$(x+2)(x+2) + x+2 = 600$

$(x+2)(x+3)$

$x^2+5x+6 = 600$

$-600 \quad -600$

$x^2+2x+2x+4$

$x^2+5x-594=0$

$x^2+3x+2x+6$

$$\frac{-5 \pm \sqrt{5^2-4\cdot 1\cdot(-594)}}{2\cdot 1}$$

$x=-27$ $x=22$

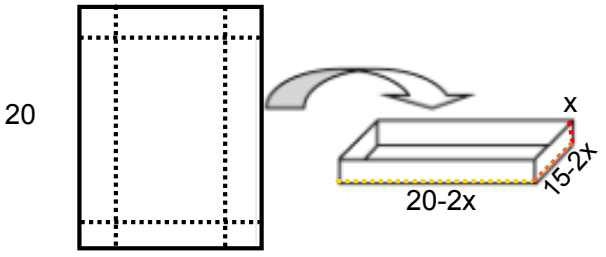
how do we know that all of our expressions are **equivalent**?

$(x+3)(x+2)$

$(x+2)(x+2) + x + 2$

$x^2 + 2x + 2x + 4 + x + 2$

$x^2 + 5x + 6$



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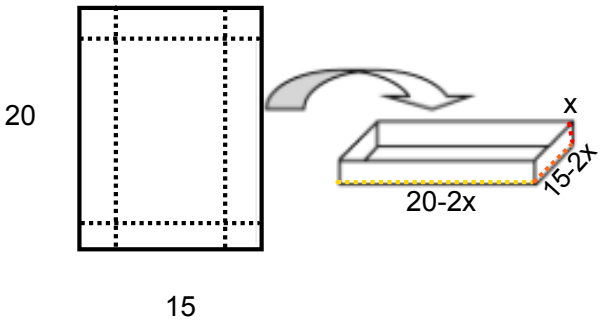
remember from chapter 2...



Work together to solve problem 3-2 a, b,& c

Are they equivalent?

How do you know?

Equivalent?

$(15-2x)(20-2x)x$ $4x^3 - 70x^2 + 300x$

$(15-2x)(20-2x)x$ $*4x^3 - 70x^2 + 300x$

What about Gary?

$(15-2x)(10-x)2x$

$(15x-2x)(20-2x)(x)$

$(4x^2-70x+300)x$

$4x^3-70x^2+300x$

3-3

WORKSHEET!

Find at least ~~THREE~~ 2 equivalent expressions

Write down how do you know?

a. $(x+3)^2 - 4$

b. $(2a^2b^3)^3$

c. $(m^2n^5)(mn^4)$

d. $\frac{(x+1)(2x-1)}{x+2}$

Monday 10/23

Assignment

3... 5-9, 11-12

turn in today:

-warm-up

-worksheet

Learning Objective

Using algebraic manipulations skills for rewriting expressions TSWBAT examine algebraic expressions and determine with justification the equivalence of two or more expressions. The student, with 95% accuracy, will complete 4 problems that will ask them to identify and justify 3 or more representations of the given expression