

If you did not take the test yesterday, come up and talk to me now.

You are about to do a 4-question  
Pre Learning Check on Equation Solving.

Although I don't expect you at this point, I do expect you to make at least some progress because you have already started a progression in Algebra 1.

Do as much as you can in 10 minutes. Then I will ask you to turn it in.

for a small grade, not based on correct answers.

HW

You are about to be given a system of linear equations to solve.

In order to make you stronger it will be difficult.

- The rules
- no calculator
  - Keep all answers exact
  - no decimals
  - Must use the method "Substitution"

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

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

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

$$\textcircled{3} \frac{4}{3} + \textcircled{3} \frac{14y}{3} + \textcircled{3} 5y = \textcircled{3} 1 \textcircled{3}$$

$$\frac{4}{3} + 14y + 15y = \frac{3}{3}$$

$$29y = -1$$

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

$$3x = 2 + 7y$$

$$x = \frac{2}{3} + \frac{7y}{3}$$

$$2x + 5y = 1$$

$$2x + 5\left(-\frac{1}{29}\right) = 1$$

$$2x - \frac{5}{29} = 1$$

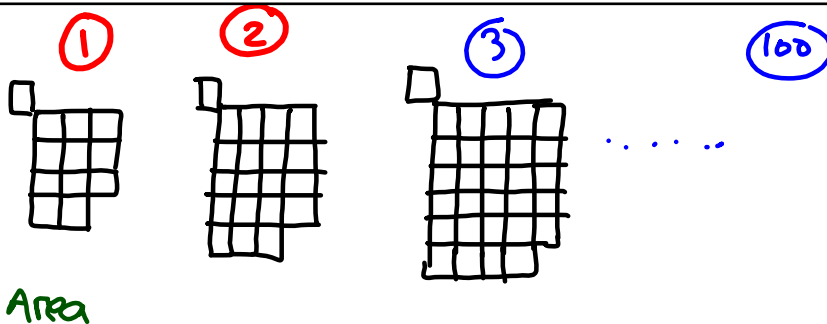
$$x \cdot 29$$

$$58x - 5 = 29$$

Ch. 3 Equivalent Expressions

NOTES

learn to re-write expressions  
of many different types



$A=12$        $A=20$        $A=30$        $A=10,506$        $A=(n+2)(n+3)$

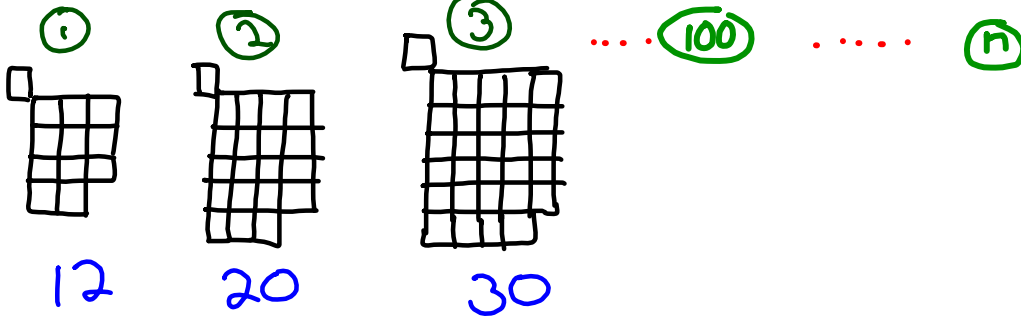
$A = (102)(102) + 102$        $\rightarrow A = (n+2)(n+2) + (n+2)$

$\cancel{O} (n+2)^2 + (n+2)$

**Work with your group to DESCRIBE what the 100th figure would look like.**

$A = (n+3)(n+1) + (n+2) + 1$

• find the areas



Then find as many expressions as you can for the area (# of tiles) for the **n**th figure. .

Which figure has 600 tiles ?

$$(n+2)(n+3) = 600$$

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

-600    -600

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

$$\begin{aligned} a &= 1 \\ b &= 5 \\ c &= -594 \end{aligned}$$

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

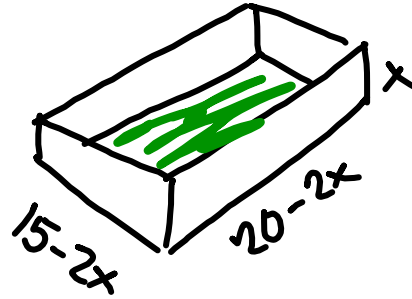
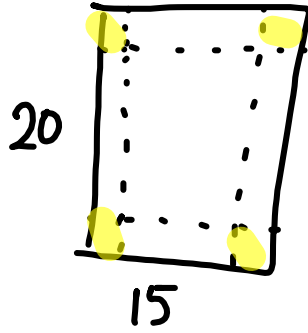
$$x = \frac{-5 \pm \sqrt{2401}}{2} = \frac{-5 \pm 49}{2}$$

$$x = \frac{-5 + 49}{2} = 22$$

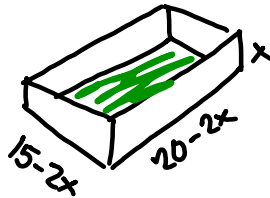
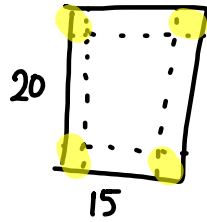
$$x = \frac{-5 - 49}{2} = -27$$

The 22<sup>nd</sup> figure has an area of 600 tiles

Remember ?



$3-2$   
 $a, b, c$



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

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

Ⓐ Are they equivalent?

$$(15-2x)(20x - \cancel{2x^2})$$

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

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

Ⓑ

Ⓒ Gary

$$(15-2x)(10-2x)2x \quad ?$$

$$(15-2x)( \quad )$$



BB

Which one doesn't belong ???

Maine

California

New York

Wyoming

California ---- Each of the others contain a city of the same name.

west

pale

rage

wear

date

pale --- all of the others can be typed only with the left hand on a keyboard.

Brainstorm as many different expressions as you can for :

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

$(4a^4b^6)^{1.5}$

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

$\frac{(2a^4b^3)^3}{a^6}$

$1(2a^2b^3)^3$

$4a^6b^4$

$$\frac{2x+4}{2(x+2)(x-3)}$$

$$\frac{2(x+4)}{2 \cdot \frac{1}{x-3}}$$

$$\frac{2(x+4)}{(x+2)(x-3)}$$

$$\frac{2(x+4)}{2(x^2-2x-12)}$$

$$2 \cdot \frac{1}{x-3}$$

$$\frac{2}{x-3}$$

See your  
Test

# Assignment

3.... 5-9, 11-12



- Each team of 4 breaks into 2 pairs.
- Each pair gets one paper and one pencil.
- Student #1 does the writing, while student #2 does the explaining

**However**

If #1 doesn't understand what is being said then they should ask #2 for an explanation, and not just blindly write down.

• Reverse Roles after the first problem.

• When both groups have finished the first two problems, but not before, compare answers.

• Then do the same thing for "c" and "d"