SIMPLIFYING EXPRESSIONS DAY 2

AGENDA

Warm-Up

Round Robin

Quiz

REMINDERS

Calculator & Mathbook form due TODAY

OBJECTIVE

We will solve word problems involving simplifying expressions.

WARM=UP

Turn in Mathbook or Calculator Agreements!!!

~~On a notecard, write your name and the following.~~

1. How has your first week of school gone?
2. What is your biggest fear about Algebra class?
3. Write one school-related goal you have for this year.
4. Write one non-school related goal you have for this year.

Algebra I - Unit 1: Topic 1 – Simplifying Expressions and Equations

Practice - Simplifying Expressions and Equations **pp 46-51**

Name _____ Date_____ Period _____

Simplify each expression. If it cannot be simplified, write "simplified".

1. $4ab + ab$ — 5ab

2. $-3h^2 - 2h^2$ — $-5h^2$

3. $a^2 + b^2$ — simplified

4. $a + b + a + c$ — $2a+b+c$

5. $6(x + y)$ — $6x+6y$

6. $16m^3 - 10m^2$ — simplified

7. $-5(2d - 8)$ — $-10d+40$

8. $-(9a + 4)$ — $-9a-4$

9. $5(r + 2) + 7r$ — $12r+10$

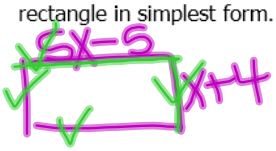
10. $5(c + 4) + 3(d - 8)$ — $5c+20+3d-24$; $5c+3d-4$

Simplify first, then evaluate if $w = 3$, $v = -2$ and $b = 5$. Circle BOTH answers.

11. $8w - 4(w - 6)$ — $8w-4w+24$; $4w+24$; $4(3)+24=36$

12. $-3(b + 4) + 6b$ — $-3b-12+6b$; $3b-12$; $3(5)-12$; 3

13. The dimensions of a rectangle are $(5x - 5)$ and $(x + 4)$. Write an expression to represent the perimeter of the rectangle in simplest form.



$5x-5+x+4+5x-5+x+4$

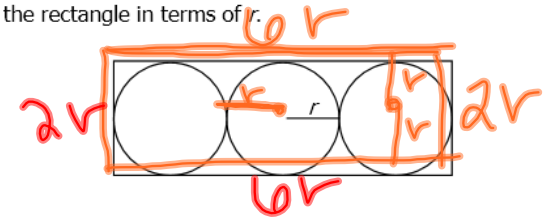
$12x-2$

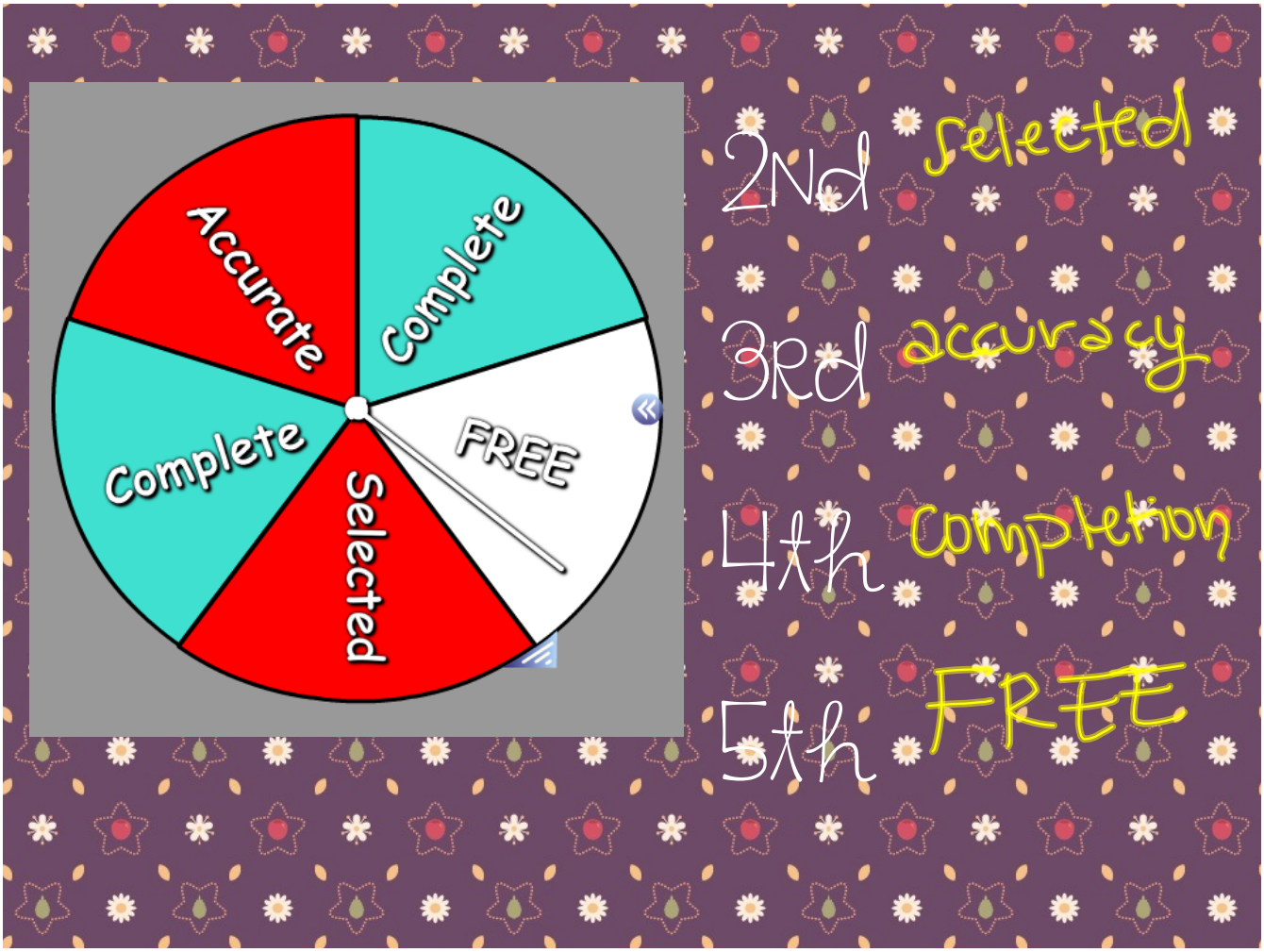
$12(2)-2=22$

Now, find the Perimeter if $x = 2$. _____

14. Find the perimeter, in simplest form, of the rectangle in terms of r.

16r

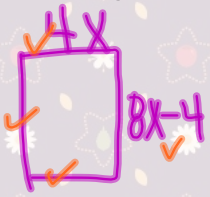



Accurate
Complete
Complete
FREE
Selected
2Nd selected
3Rd accuracy
4th completion
5th FREE

SIMPLIFYING EXPRESSIONS P. 10

Draw a picture representing the situation, then write expressions or equations for each of the following problems. Simplify if possible.

1. The length of a rectangle is 4x meters long and the width is 8x – 4 meters long.



A. Write an expression to represent the perimeter of the rectangle in simplest form.

4(3) 12 8(3)-4 -28

Add all sides

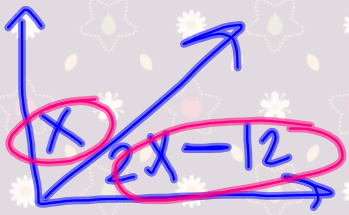
$4x + 8x-4 + 4x + 8x-4$

$24x - 8$ meters

B. Evaluate the perimeter if x = 3.

$24(3) - 8 = 64$ m

2. Write an equation, in simplest terms, to find the measure of two complementary angles. The measure of larger angle is 12 less than twice the measure of the smaller angle.



90°

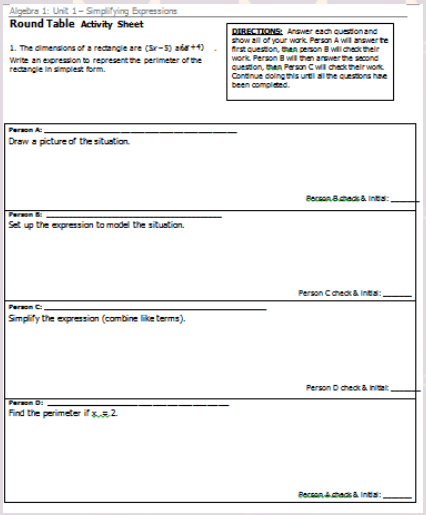
$x + 2x-12 = 90$

$x+2x-12=90$

$3x-12=90$

SIMPLIFYING EXPRESSIONS DAY 2

DIRECTIONS: Answer each question and show all of your work. Person A will answer the first question, then person B will check their work. Person B will then answer the second question, then Person C will check their work. Continue doing this until all the questions have been completed. **Write your name on each section you worked on.**



Algebra 1: Unit 1 – Simplifying Expressions

Round Table Activity Sheet

1. The dimensions of a rectangle are $(3x-5)$ and $(+4)$. Write an expression to represent the perimeter of the rectangle in simplest form.

DIRECTIONS: Answer each question and show all of your work. Person A will answer the first question, then person B will check their work. Person B will then answer the second question, then Person C will check their work. Continue doing this until all the questions have been completed.

Person A: _____

Draw a picture of the situation.

Person B check & initial: _____

Person B: _____

Set up the expression to model the situation.

Person C check & initial: _____

Person C: _____

Simplify the expression (combine like terms).

Person D check & initial: _____

Person D: _____

Find the perimeter if $x=3$, $y=2$.

Person A check & initial: _____

Algebra 1: Unit 1 – Simplifying Expressions

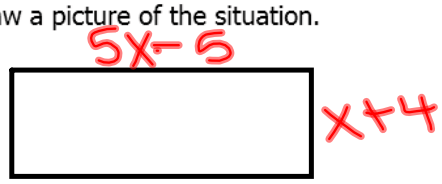
Round Table Activity Sheet

1. The dimensions of a rectangle are $(5x-5)$ and $(x+4)$. Write an expression to represent the perimeter of the rectangle in simplest form.

DIRECTIONS: Answer each question and show all of your work. Person A will answer the first question, then person B will check their work. Person B will then answer the second question, then Person C will check their work. Continue doing this until all the questions have been completed.

Person A: _____

Draw a picture of the situation.



Person B check & initial: _____

Person B: _____

Set up the expression to model the situation.

$(5x-5)+(x+4)+(5x-5)+(x+4)$

Person C check & initial: _____

Person C: _____

Simplify the expression (combine like terms).

$(5x-5)+(x+4)+(5x-5)+(x+4)$

$12x-2$

Person D check & initial: _____

Person D: _____

Find the perimeter if x = 2.

$12(2)-2$

$24-2$

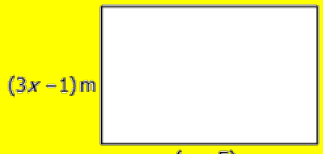
22

Person A check & initial: _____

Algebra 1: Unit 1 – Simplifying Expressions

Round Table Activity Sheet

2. Write an equation, in simplest form, of the rectangle below whose perimeter is 80 meters.



DIRECTIONS: Answer each question and show all of your work. Person A will answer the first question, then person B will check their work. Person B will then answer the second question, then Person C will check their work. Continue doing this until all the questions have been completed.

Person A: _____

How do you find the perimeter of a rectangle?

Add all the sides.

Person B check & initial: _____

Person B: _____

Set up the equation to model the situation.

$2(3x-1)+2(x+5)=80$

Person C check & initial: _____

Person C: _____

Simplify the expression (combine like terms).

$2(3x-1)+2(x+5)=80$

$6x-2+2x+10=80$

$8x+8=80$

Person D check & initial: _____

Person D: _____

Can you find the value of x? What steps would you take?

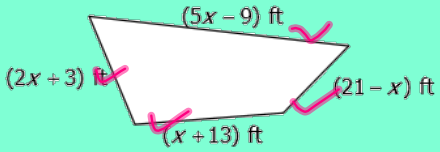
Use inverse operations.

Person A check & initial: _____

Algebra 1: Unit 1 – Simplifying Expressions

Round Table Activity Sheet

3. Write an equation, in simplest form, for the perimeter of the quadrilateral below if the perimeter is 77 feet.



DIRECTIONS: Answer each question and show all of your work. Person A will answer the first question, then person B will check their work. Person B will then answer the second question, then Person C will check their work. Continue doing this until all the questions have been completed.

Person A: _____

How do you find the perimeter of this shape?

add up all sides

Person B check & initial: _____

Person B: _____

Set up the equation to model the situation.

$(5x-9)+(21-x)+(x+13)+(2x+3)=77$

Person C check & initial: _____

Person C: _____

Simplify the expression (combine like terms).

$(5x-9)+(21-x)+(x+13)+(2x+3)=77$

$7x+28=77$

Person D check & initial: _____

Person D: _____

Can you find the value of x? What steps would you take?

use inverse operations

Person A check & initial: _____

Algebra 1: Unit 1 – Simplifying Expressions

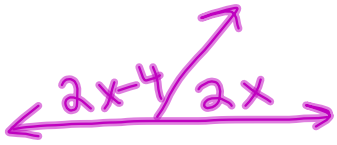
Round Table Activity Sheet

DIRECTIONS: Answer each question and show all of your work. Person A will answer the first question, then person B will check their work. Person B will then answer the second question, then Person C will check their work. Continue doing this until all the questions have been completed.

4. Write an equation, in simplest terms, to find the measures of the two supplementary angles. The measure of the smaller angle is $(2x-4)^\circ$, and the measure of the larger angle is $(2x)^\circ$.

Person A: _____

Draw a picture that represents this situation.



Person B check & initial: _____

Person B: _____

Set up the equation to model the situation.

$2x-4+2x=180$

Person C check & initial: _____

Person C: _____

Simplify the expression (combine like terms).

$4x-4=180$

Person D check & initial: _____

Person D: _____

Can you find the value of x? What steps would you take?

$4x-4=180$

$+4 \quad +4$

$\frac{4x}{4}=\frac{184}{4}$

$x=46$

Person A check & initial: _____

QUIZ

You have until the end of the period.

ATTEMPT every question!

You may use YOUR notebook, not your neighbor.

QUIZ

~~Get out a separate sheet of paper. Write your name and answers.~~