

# 8th Annual American Indian Alaska Native Education Summit



*Transforming for the Future:  
Closing the Achievement Gap for American Indian Students*



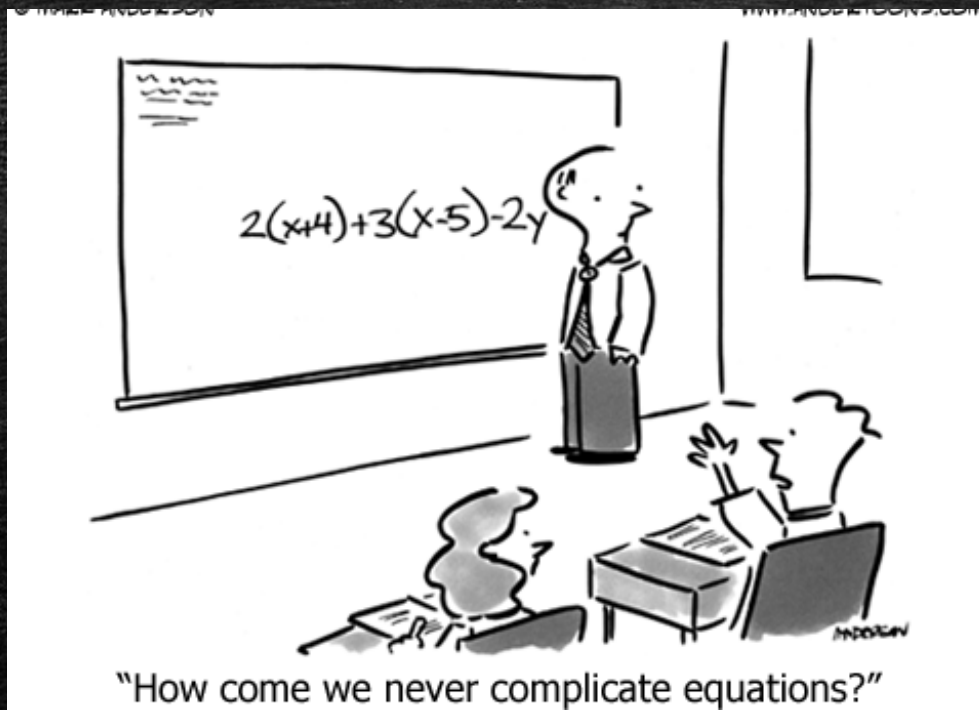
# The Stigma of Culture



# The Stigma of Culture



# Recovering math teacher



# 60 Menominee March 155 Miles to Madison



# Teachitvity



Updating the 4 C's

Critical Thinking  
Collaboration  
Community  
Creativity

**Closing the gap?**

**Proficiency**

**Growth**





# Curricular Needs – CHECK!



## NEVADA ACADEMIC CONTENT STANDARDS

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### English & Language Arts & Mathematics

With the adoption of the Common Core State Standards in October 2010, they became the Nevada Academic Content Standards for English Language Arts and Mathematics. With this action, the Nevada State Board of Education committed to ensuring that all students are ready for college and careers.

- ELA
- Math
- Transition
- 12-18-14 Webinar
- 12-18-14 Powerpoint

# Content Standards vs. Process Standards

What to teach

How to teach

**Number and Operations in Base Ten** **3.NBT**

**Use place value understanding and properties of operations to perform multi-digit arithmetic.**

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

NEVADA ACADEMIC CONTENT STANDARDS FOR MATHEMATICS

## Mathematics / Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy).

Teaching is a challenging profession



# Cultural Education



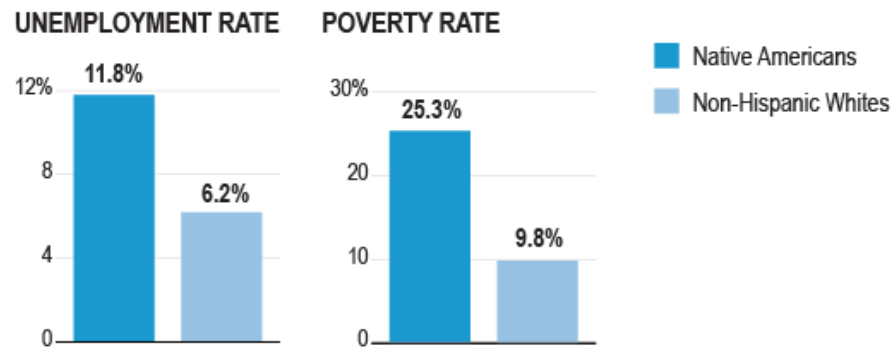
# Teacher Training



# Facts & Figures

## Native Americans in Wisconsin are More Likely to be Unemployed and Live in Poverty

Unemployment and poverty rates in 2012, in Wisconsin.



Source: American Community Survey

WISCONSIN BUDGET PROJECT

Do they help?

1<sup>st</sup> grade classroom



Rote vs. Thinking

Teaching Culture

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Teaching Culturally



# Communication



**MEN ARE  
FROM MARS,  
*Women Are  
from Venus***

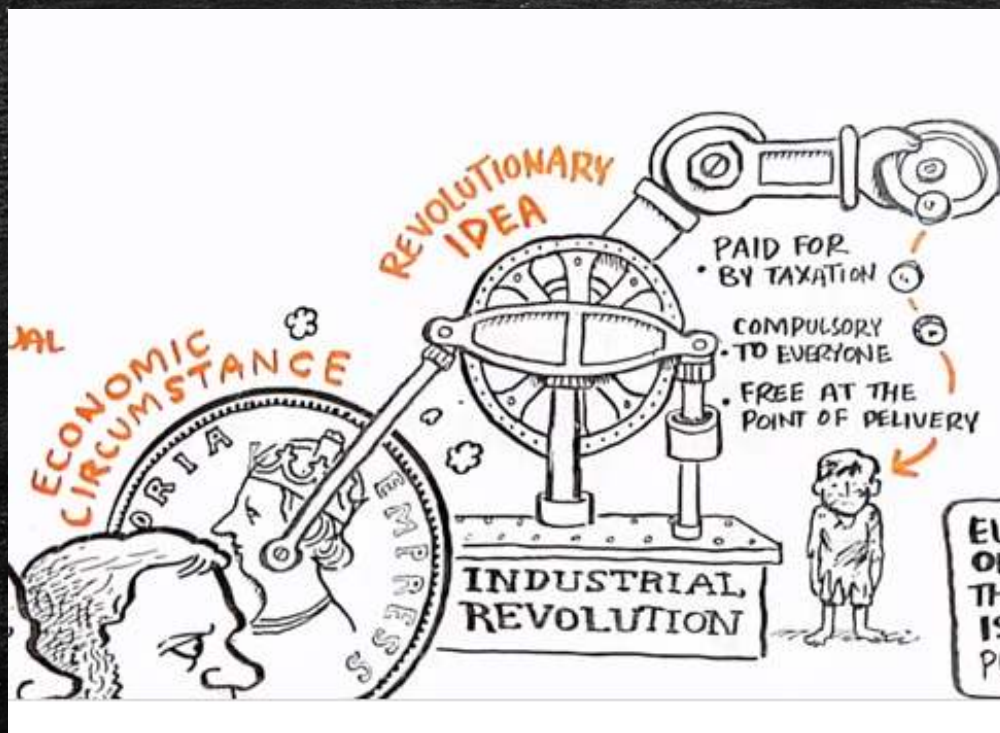
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A Practical Guide for  
Improving Communication and  
Getting What You Want in Your Relationships

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**JOHN GRAY, Ph.D.**

# Industrial Pedagogy



One size fits all

## Unique Social/Emotional Needs



Assurance  
Attention  
Love  
Respect  
Community  
Identity

# Family's effect on education

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# Social/Emotional Needs Research

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Maslow's Hierarchy

Martin Brokenleg "Circle of Courage"

Heather Forbes "Beyond Consequences

Ruby Payne's "Understanding Poverty"

# Women in Teaching - 87%

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Let's play

The Kahoot! logo is displayed in a large, white, bold, sans-serif font with a slight shadow effect, centered within a bright cyan rectangular box. The box is outlined with a thin, hand-drawn style cyan border.

# Kahoot!

Step 1: Get a device

Step 2: Go to [kahoot.it](https://kahoot.it)

Step 3: Enter game pin

Step 4: Create nickname

Step 5: Have fun!



## The inevitable argument



How do you handle?

Can we do that?



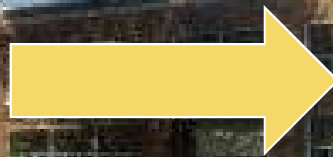
# Collaboration



Working toward a  
common goal

# Tower-Soudan School

28.8%  
2011



91.3%  
2012

*Reward School*



**2012**

Minnesota Department of

Education

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"Many ideas grow better when  
transplanted into another mind than  
the one where they sprang up." -

*Oliver Wendell Holmes*

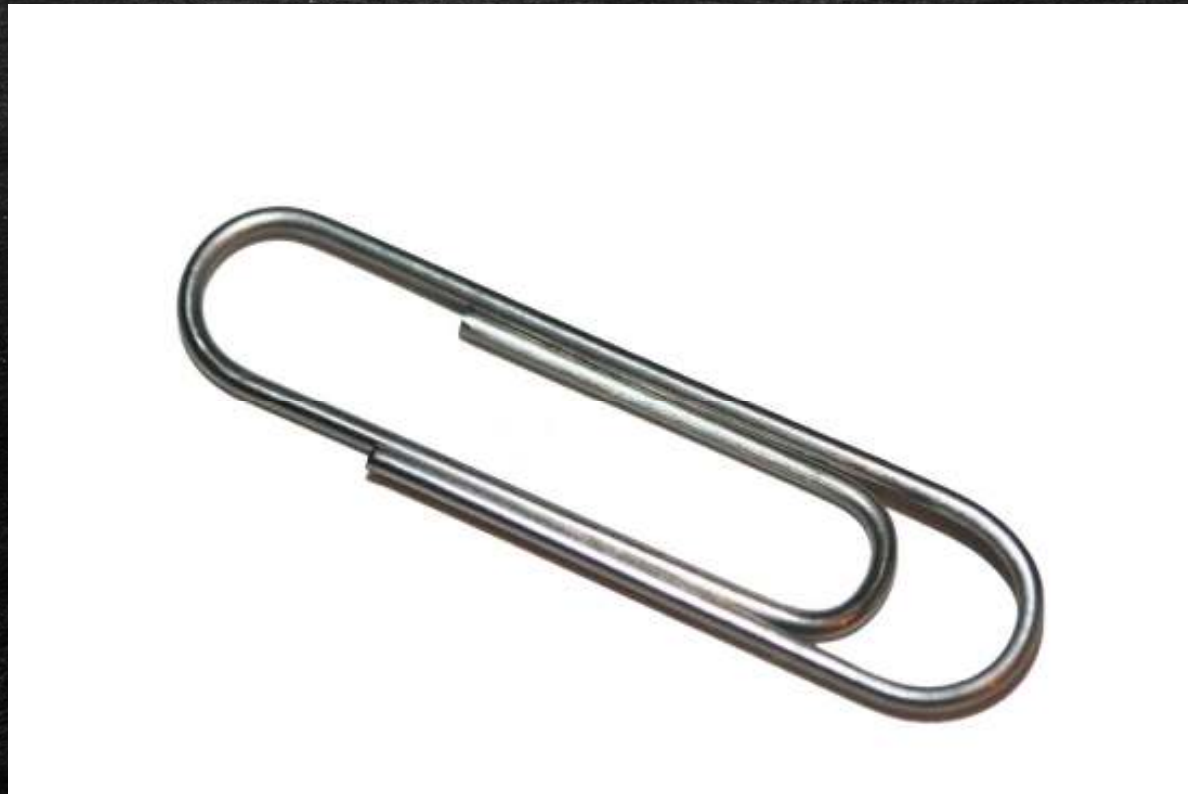
Creativity

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What is it?

90 seconds

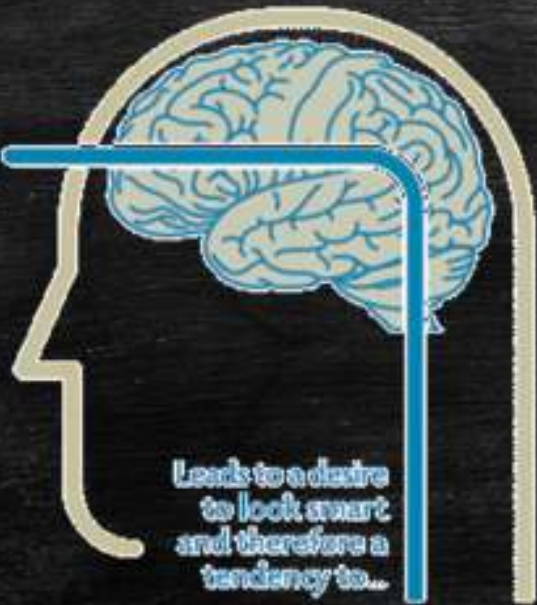
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# Divergent Thinking

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**Fixed Mind-set**  
Intelligence is static



Leads to a desire  
to look smart  
and therefore a  
tendency to...

**Growth Mind-set**  
Intelligence can be developed



Leads to a desire  
to learn and  
therefore a  
tendency to...



## The Divergent Thinking Study

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- 98% of participants rated "genius"
- All participants were kindergartners
- At age 10, it dropped to 30%
- At age 15, it dropped to 12%

**"OMG MATH IS SOOOO FUN!"**

**- NOBODY EVER**



# Redefining mathematics

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- Math helps describe our environment
- The foundation of math is problem-solving
- Problem-solving is:

**what you do when you don't know what to do**

What you do...when you don't know what to do



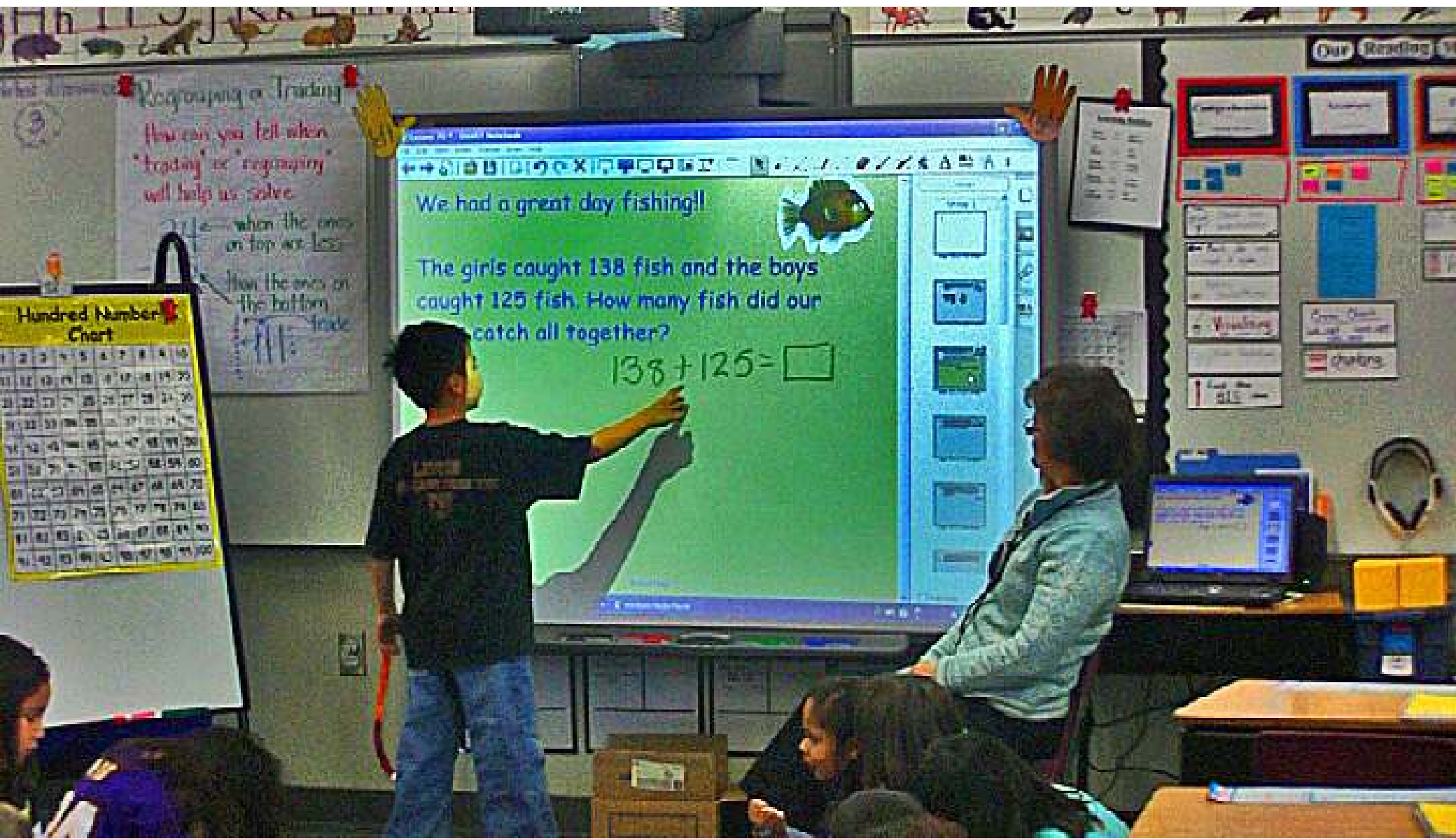
# Creating problem-solvers



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“Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world.”

-Albert Einstein



We had a great day fishing!!



The girls caught 138 fish and the boys caught 125 fish. How many fish did our class catch all together?

$$138 + 125 = \square$$

Hundred Number Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

### Regrouping or Trading

How can you tell when "trading" or "regrouping" will help us solve?

1. when the ones on top are less

2. How the ones on the bottom trade



### Our Reading

Area containing various educational posters and charts, including a 'Reading' chart and a 'Classroom' chart.

$$138 + 125 = 263$$



258

250

230

200



In closing...

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Thank you!