Top Teacher Moves

Re-Engagement & Spiraling

Solution Tree
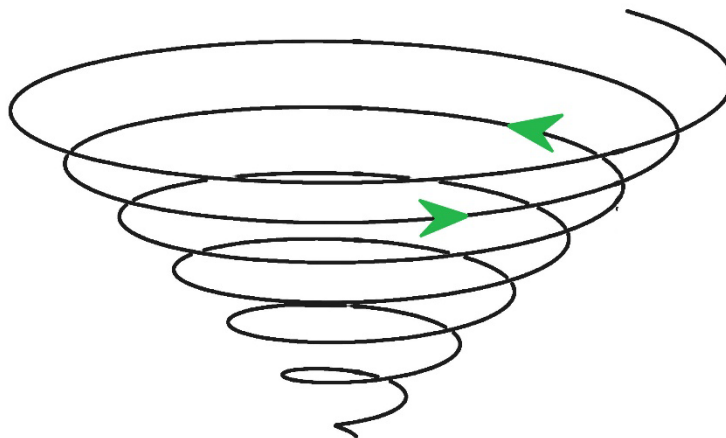
Chris Shore

Day 4 of 5

Cordova HS, Mar 10, 2025

Top Teacher Moves

1. **High Expectations for and Communicated to ALL Students**
2. **Tasks! (60% of the time)**
3. **Warm-Up on Prerequisite Skills & Numeracy**
4. **No-Options Engagement**
5. **Dual Objectives for the Explicit Teaching of Thinking**
6. **Group Work, Norms & Group Quizzes**
7. **Concepts-Procedures-Applications (C-P-A Progression)**
8. **Lapboards (Engagement, Feedback Techniques)**
9. **3-Reads, Close Reading**
10. **Higher-Order Thinking Questions**
11. **Chunking**
12. **Gradual Reel-In**
13. **Manipulatives & Measurement**
14. **Structured Notes with Feedback**
15. **Cumulative Assignments & Assessments**
16. **Re-Engagement instead of Re-Teaching**
17. **Use Student Thinking in Formative Assessment**
18. **Differentiation by Extension**
19. **Instructional Technology**
20. **Process Reward System**
21. **Boot Camp (Unit 0)**
22. **Reflective Conclusion**
23. **Home Base: Teach Students How to Play School; More Textbooks for Students, Less for Teachers**

Compiled by Chris Shore, 2022

Revisiting the
Top Teacher Moves

<u>VISION of Cordova High</u>:   Team Progress on Vision (1-5) _____

- Develop m_____, r_____, c_____ learners who are college and career ready.

<u>GROWTH MINDSETS</u>:   Team Progress on Mindset (1-5) _____

- Students must believe in _____ & _____
- Teachers must believe in _____ & _____

<u>To Reach & Teach 'THOSE KIDS'</u>:   Team Progress on Those Kids (1-5) _____

- We need a P_____ S_____
- Students need
  o   N__-O_____ Engagement
  o   P_____ Skills
  o   H_____ O_____ T_____ Skills

<u>The Standards of MATHEMATICAL PRACTICE</u>:   Team Progress on The SMPs (1-5) _____

1._____   5. _____
2._____   6. _____
3._____   7. _____
4._____   8. _____

   Dual Targets means to have a lesson objective that states both C_____ & P_____

<u>The Explicit Teaching of THINKING</u>:   Team Progress on Thinking (1-5) _____

   Teaching problem solving is all about the T_____.

<u>INTERVENTION</u>:   Team Progress on Intervention (1-5) _____

   Four Types of Intervention: Mandatory Work Completion, Closed Tutorial, Open Tutorial, Preferred Time

The C-P-A Progression:

Direct instruction on procedures should occur between C_____ development and opportunities for

A_____.

Group Work:

- The 3 types of group structures are H_____, H_____ & R _____.
- The 3 principles of making group work work with less work are: N_____, V_____ &

A_____.

Your SCHOOL GOALS:

ACADEMIC: 3% progress with EL Students. Your prediction = ___%

CULTURAL: 3% progress with Celebrations. Your prediction = ___%

The ULTIMATE GOAL:

The ultimate goal of any Professional Learning Community is C_____ I_____

regarding all students learning at high levels, defined as G_____ L_____ or higher.

Your PROGRESS:

Your stated Problem to Solve is _____.

Your chosen Top Teacher Move is _____.

The Clothesline

Name: _____

Date: _____

For each set, record the given values, expressions or drawings. After the discussion of their placement on the clothesline, record them on the number line.
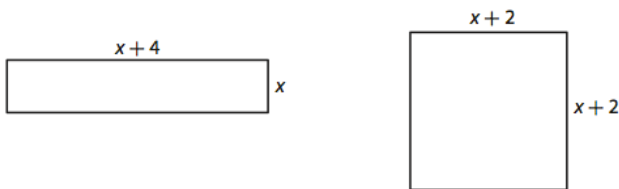
1. _____ , _____ , _____

$\longleftrightarrow$

2. _____ , _____ , _____

$\longleftrightarrow$

**3.** _____ , _____ , _____

$\longleftrightarrow$

H.O.T.S.
(Higher-Order Thinking Skills)
Unit 1: Quantities, Equations & Inequalities

1) A student is given the rectangle and the square shown. The student states that the two figures have the same perimeter. Is the student correct? Explain your reasoning.

2) Jerry is planting white daisies and red tulips in his garden and he wants to choose a pattern in which the tulips surround daises. He uses tiles to generate patterns starting with two rows of three daises. He surrounds these daisies with a border of tulips. The design continues as shown.

Border 1   Border 2   Border 3
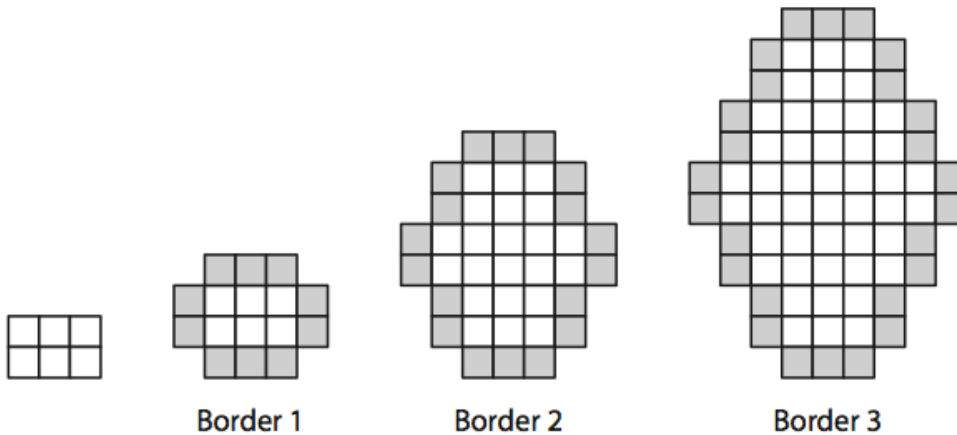
    a) Jerry writes the expression 8(b − 1) + 10 for the number of tulips in each border, wherein b is the border number and b ≥ 1. Explain why Jerry's expression is correct.

    b) Elaine wants to start with two rows of four daisies. Her reasoning is that Jerry started with two rows of three daisies and his expression was 8(b − 1) + 10, so if she starts with the two rows of four daises, her expression will be 10(b − 1) +10. Is Elain's statement correct? Explain.

3) A veterinarian is changing the diets of two animals, Simba and Cuddles. Simba currently consumes 1200 Calories per day. That number will decrease by 100 Calories each day. Cuddles currently consumes 3230 Calories a day. That number will decrease by 190 Calories each day. If these patterns continue, how many days will take for the animals to be consuming the same number of calories? How many Calories will the animals be consuming each day then?

4) Lisa is 10 centimeters taller than her friend Ian. Ian is 14 centimeters taller than Jim. Every month, their heights increase by 2 centimeter. In 7 months, the sum of Ian's and Jim's heights will be 170 centimeters more than Lisa's height. How tall is Ian now?

5) Given the table below, after how many years are the salaries offered by Company A and Company B the same?

	Starting Salary	Yearly Salary Increase
Company A	$24,000	$3000
Company B	$30,000	$2400
Company C	$36,000	$2000

6) Sven is trying to find the maximum amount of time he can spend practicing the five scales of piano music. So, Sven sets up the following inequality, where t is the number of minutes he spends on each scale, and solves it.

$$60 - 5t \leq 25$$
$$-5t \leq -35$$
$$t \geq 7$$

a) According to his inequality, how many total minutes does he have to practice?

How many minutes does he have to practice things other than his scales?

What does the t represent?

b) Sven solved his inequality and concluded that he should spend 7 minutes or more on each scale. Is this correct? If not, what mistake did he make? Then solve for the correct answer.

CAASPP Re-Engagement Protocols
Chris Shore with Solution Tree, Mar 2025

1) **BACKWARDS PLAN**: Counting backwards from the first day of the assessment, plan for about 8 problems from the Practice Test each day (4 days total), plus 2 more days for the Performance Practice Task. Also, plan two periods for the group quiz (Parts A & B), plus a third period for the additional Performance Task (Part C).

Monday	Tuesday	Wednesday	Thursday	Friday
Intro & Set 1	Practice Set 2	Correct & Reflect	Practice Set 3	Practice Set 4
Correct & Reflect	PT Day 1	PT Day 2	Correct & Reflect	Formative Day
Quiz A	Quiz B	Quiz C (PT)	Correct & Reflect	Formative Day

2) **INTRODUCTION**: Introduce the Re-Engagement Unit including the Claims, with students revisiting their goals and refocusing on the objectives of the course. Also have them review their Grade Record Sheets to reflect on their own strengths and weaknesses.

3) **PRACTICE SET**: For each block, have students loop through the Gradual Reel-In cycle (individual student, resources, group work, whole class discussion, teacher conclusion). Give students about 10 minutes to work on the prompts individually, then about 10 minutes with their textbook, notes and devices. For most of the block, allow students to work in their groups only asking for teacher help after they have struggled together. The teacher then leads the class discourse on any sticky spots observed during the group work, and finally concludes the activity with the main points of the unit. Students should also reflect on what their strengths and weaknesses are on the material.

4) **ANSWER KEYS/EXEMPLARS**: Every two days, supply each group of students with one copy of the handwritten answer key. Have them discuss while you make note of which prompts still give the students the most trouble.

5) **GRADING**: It is not necessary to grade the Unit Sets, but if you do, don't try to grade every prompt. Let the students know you will be grading some of their work, but they don't know which part, so they must complete it all.

6) **FORMATIVE RE-TEACHING**: From your grading, group observation or student input, identify the most difficult prompts for the majority of the students, and model exemplary responses at the end of the practice/PT problems and then again after the quizzes.

7) **QUIZZES**: These are group activities. Allow students the entire class period to complete them. The quizzes are shorter and less rigorous than the Practice Test problems.
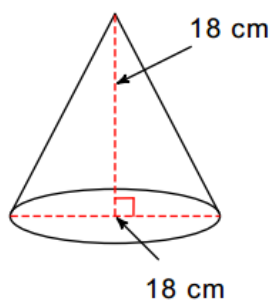
Geometry
Shore

Name _____

Group Quiz #13   Concepts & Procedures 1 = ___ ___ = Construct Models
Volume   Concepts & Procedures 2 = ___ ___ = Critical Thinking
                     Communicate Reasoning = ___ ___ = Creativity
                                            ___ = Collaboration

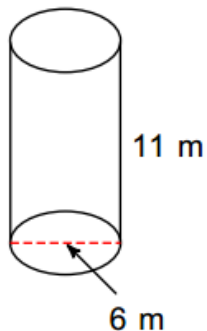**CONCEPTS & PROCEDURES 1 (Volume)**
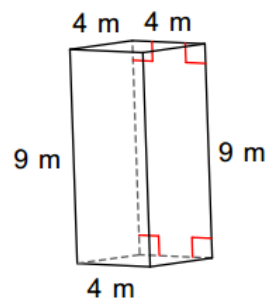
1-5) Find the volume of each of the following figures.
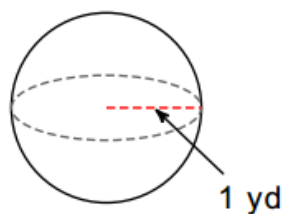
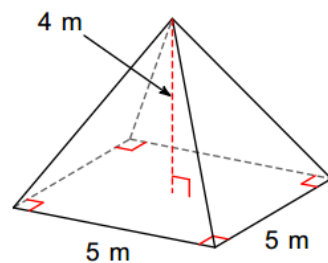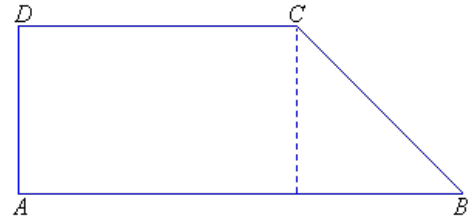1.   2.   3.

18 cm

18 cm

11 m

6 m

4 m   4 m

9 m   9 m

4 m

4.   5.

1 yd

4 m

5 m   5 m

Geometry
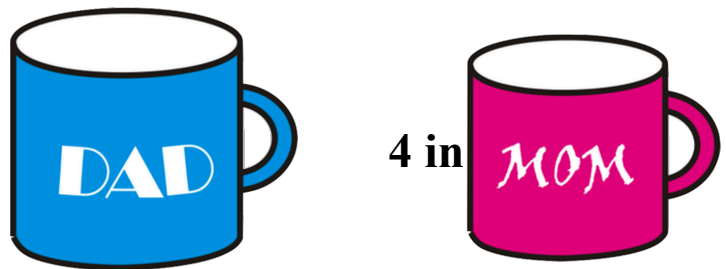Shore   Name _____

CONCEPTS & PROCEDURES 2 (Scale Factor)

6) The given figure, ABCD, is enlarged by a scale factor of 3.

a. How much longer is the enlarged perimeter?   b. How much larger is the enlarged area?

7) Dad's and Mom's mugs are similar solids. The volume of Dad's mug is 54π, while Mom's is 16π. How tall is Dad's mug?
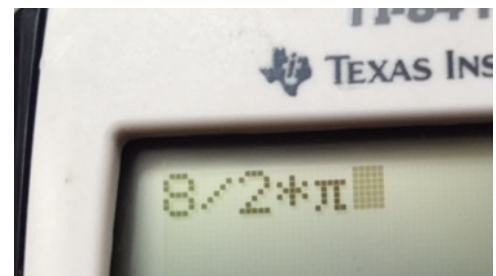
4 in

COMMUNICATE REASONING

8.   Sammy was solving for the radius of circle given its circumference, as shown.

   a) Explain how you would estimate the value of $\frac{8}{2\pi}$.

$$C = 2\pi r$$
$$8 = 2\pi r$$
$$\frac{8}{2\pi} = r$$

TEXAS INS

   b)   Explain why Sammy's entry into the calculator, shown here, yeilded the wrong answer.

8/2*π

Name _____

CONSTRUCTING MODELS

9. Watch this video clip from the movie *Holes*: http://bit.ly/ShorterShovel.
    How much less dirt would a boy dig if his shovel is 1" shorter than the standard shovel?

CRITICAL THINKING

10. Go to the following link: http://mrmeyer.com/boatdock/
    What is the shortest possible length of the ramp that will connect the docks? Support your answer
    mathematically.

CREATIVITY

11. Draw a composite solid that has a volume between 100 cm^3 and 200cm^3.

MVUSD Name _____

Progressive Equations

Score ___, ____, ___, ____, ___, ____, ___, ____, ___, ____,

Solve

1) x + 2 = 8

5) $\frac{1}{3}x = 6$

6) $\frac{x}{20} = 80$

2) x − 20 = 45

7) On his lunch break, Crosby purchases a piece of pizza and a salad. The total order is $9.25. If the pizza cost $5.30, then how much was the salad. Write and solve an equation to represent this scenario.

3) 4x = 12

4) 15x = 3

Solve Your Name
Poster

=

=

=

=

=

=

=

=

=

=

Solve Your Name
Formula Sheet

1. Formula: _____, _____

2. Formula: _____, _____

3. Formula: _____, _____

4. Formula: _____, _____

5. Formula: _____, _____

1. $A = lw$ Area of a Rectangle

2. $A = \frac{1}{2}bh$ Area of a Triangle

3. $A = \pi r^2$ Area of a Circle

4. $A = \frac{1}{2}(b_1 + b_2)h$ Area of a Trapezoid

5. $\pi = \frac{c}{d}$ Definition of π

6. $C = 2\pi r$ Circumference of Circle

7. $V = lwh$ Volume of a Rectangular Prism

8. $V = Bh$ Volume of a Prism

9. $V = \frac{1}{3}Bh$ Volume of a Pyramid

10. $V = \pi r^2 h$ Volume of a Cylinder

11. $V = \frac{1}{3}\pi r^2 h$ Volume of a Cone

12. $V = \frac{m}{D}$ Density & Volume

13. $F = \frac{M}{d}$ Force of Momentum

14. $I = prt$ Simple Interest

15. $d = rt$ Distance

16. $y = mx + b$ Slope-Intercept Form

17. $P = 4s$ Perimeter of a Square

18. $P = 2l + 2w$ Perimeter of a Rectangle

19. $E = IR$ Voltage of a an Electric Circuit

20. $P = I^2 R$ Power of a an Electric Circuit

21. $a + b + c = 180$ Triangle Sum

22. $Ax + By + C = 0$ Standard Form of a Line

23. $Ax + By + Cz + D = 0$ Standard Form of a Plane

24. $K = \frac{1}{2}mv^2$ Energy

25. $s = \frac{1}{2}gt^2$ Distance

26. $x = \frac{e+f}{2}$ Average of Two Numbers

27. $D = \frac{C-s}{n}$ Depreciation

28. $V = \frac{KT}{P}$ Volume of Gas

29. $S = 2B + hp$ Surface Area of a Prism

30. $S = 2B + L$ Surface Area of a Prism

31. $S = B + \frac{1}{2}lp$ Surface Area of a Pyramid

32. $E = VIT$ Electrical Energy

33. $E = QV$ Electrical Energy

34. $q = mc$ Heat Transfer

35. $E = mc^2$ Relativity

36. $v^2 = u^2 + 2as$ Velocity & Acceleration

37. $J = mhg$ Joules (energy)

38. $z = \frac{x-u}{\sigma}$ z-score

39. $U = \frac{1}{2}kx^2$ Potential Energy of Spring

40. $F = q(E + BV)$ Force on a charged particle

41. $r = i - \pi$ Fisher Equation

42. $S = 180(n - 2)$ Angle Sum

43. $F = \frac{Gm_1 m_2}{d^2}$ Gravity

44. $V - E + F = 2$ Euler's Equation

45. $E = \frac{J}{\sigma}$ Ohm's Law

46. $m = \frac{W}{g}$ Mass

47. $X + Y + Z = 1$ Chromaticity Coordinates

48. $I = \sqrt{\frac{W}{R}}$ Circuit Amperage

49. $N = \frac{s^3 - 1}{2}$ Sierpinski's Triangle

50. $K = \dfrac{v}{U}$ Josephson Constant

51. $Q = mH$ Thermal Energy

52. $F = ma$ Force

53. $Q = ST$ Entropy

54. $f(x) = O(g(x))$ Limiting Behavior of a Function

55. $PV = NRT$ Ideal Gas Law

56. $\sigma^2 = \dfrac{Q}{P^2}$ Variance