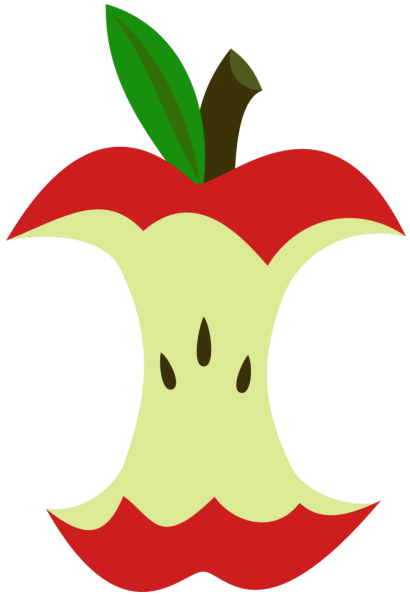
The Struggle for ALL is Real for ALL

Kansas Association of Teachers of Mathematics

Kansas College and Career Ready Standards For Mathematics



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#KATM16
#thestruggleisreal

MPJ

YOUR 21st Century Classroom

engage^ny

Shifts in Mathematics		
Shift 1	Focus	Teachers significantly narrow and deepen the scope of how time and energy is spent in the math classroom. They do so in order to focus deeply on only the concepts that are prioritized in the standards.
Shift 2	Coherence	Principals and teachers carefully connect the learning within and across grades so that students can build new understanding onto foundations built in previous years.
Shift 3	Fluency	Students are expected to have speed and accuracy with simple calculations; teachers structure class time and/or homework time for students to memorize, through repetition, core functions.
Shift 4	Deep Understanding	Students deeply understand and can operate easily within a math concept before moving on. They learn more than the trick to get the answer right. They learn the math.
Shift 5	Application	Students are expected to use math and choose the appropriate concept for application even when they are not prompted to do so.
Shift 6	Dual Intensity	Students are practicing and understanding. There is more than a balance between these two things in the classroom – both are occurring with intensity.

EdLeader21

The Four C's
Critical Thinking
Communication
Collaboration
Creativity

Smarter Balanced Assessment Consortium

The Four Claims
Concepts & Procedures
Problem Solving
Communicate Reasoning
Modeling & Data Analysis

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

COMMON CORE
STATE STANDARDS INITIATIVE

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. _____, _____, _____

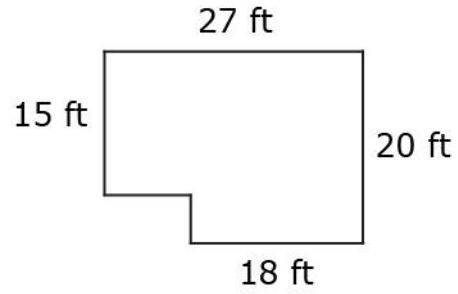
2. _____, _____, _____

3. _____, _____, _____

4. _____, _____, _____

Grade 6 Operational Mathematics Performance Task 2016

The dimensions of Sheila's living room are shown in feet (ft).



Sheila is installing boards of hardwood flooring in the living room. Each board is $3\frac{3}{4}$ inches (in.) wide and 36 in. long.

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1. What is the area of the living room in square inches (in^2)?

2. What is the area of one board?

3. How many boards are needed to cover the living room floor?

4. Each case of boards of flooring covers an area of $23\frac{1}{2}$ ft^2. The price of the case is \$4.00 per ft^2. What is the cost of each case?

5. How many cases will Sheila need to buy?

6. How much will it cost to purchase all of the cases?

A basketball coach had each player attempt 25 baskets during practice. The number of baskets each player made is shown in the table.

Player	Number of Baskets Made
Jesse	18
Mark	16
Donovan	11
Eddie	14
Shawn	17
Bill	16
Ray	15
Al	21

1. What percentage of baskets did the entire team make?
2. What is the ratio of baskets made to baskets missed by the entire team?

3. Ray attempted 1 more basket after his first 25 attempts. What is the probability that he made the basket? Write your answer in decimal form.

4. What percentage of baskets did Al make?

Al has time to attempt 15 more baskets. He wants to make 90% of his total attempted baskets for the day.

5. Create an equation that will find how many more baskets, x, Al must make out of his 15 extra attempts to reach a 90% total success rate for the day.

Al has time to attempt 15 more baskets. He wants to make 90% of his total attempted baskets for the day.

6. Solve the equation created and enter your answer in the box.

A phone company offers two monthly plans. Plan X offers custormers unlimited phone calls and text messages for $30, plus data usage for $0.01 per megabyte (MB). Plan Y offers customers unlimited phone calls, text messages, and data usage for $80.

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1. Write an equation for plan X using *c* for the total cost of the plan and *m* for the number MB of data used.

2. Write an equation for plan Y using *c* for the total cost of the plan and *m* for the number of MB of data used.

3. How many MB of data would a customer need to use in order for plan X to cost the same as plan Y?

The table shows the amount of data used for different tasks.

Task	**Data Used (MB)**
Upload 1 photo	0.8
Download 1 song	5.0
Stream 1 minute of video	8.0

4. Write an equation for the amount of data required, in MB, for uploading photos, downloading songs, and streaming video, where

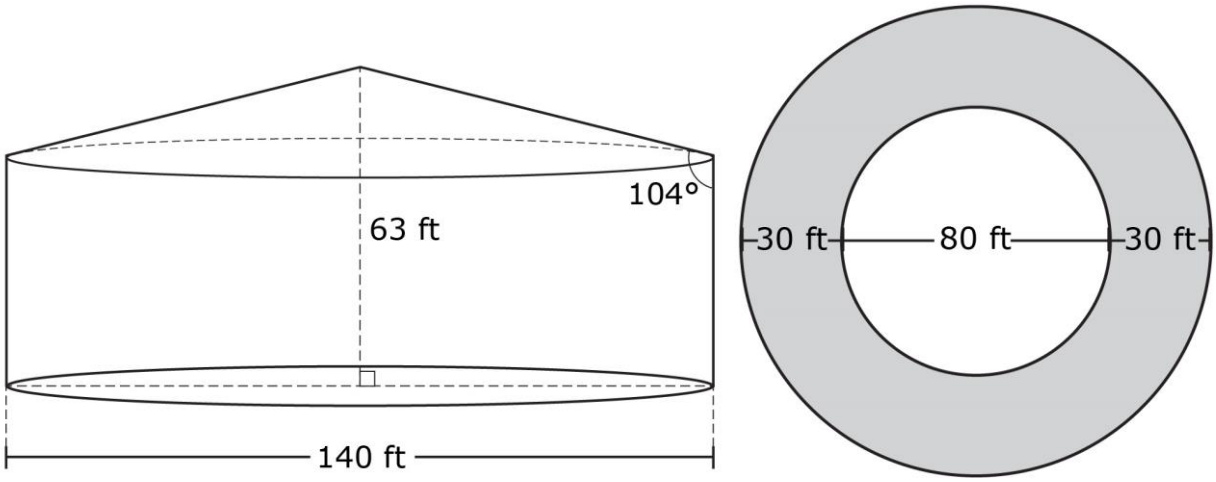
   m = total MB used,
   p = number of photos uploaded,
   s = number of songs downloaded, and
   v = minutes of video streamed.

5. On average, Sam, a customer, uploads 50 photos, downloads 16 songs, and streams 6 hours of video each month. Which plan would be cheaper for Sam? How much would the plan cost?

6. Sam wants to lower his bill by $20 by streaming less video. What percent of his current video will Sam stream to accomplish this, rounded to the nearest percent?

Grade 10 Example Mathematics Performance Task 2016

A circus tent is composed of a cylinder with a diameter of 140 feet (ft) topped by a cone of the same diameter, as shown. The height of the tent at its highest point is 63 ft. The visitors at the circus stand in the outer area of the base. The base of the tent, showing the visitor area with shading, is shown from above.



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1. How tall is the conical portion of the tent? Write your answer, and explain how you found it.

2. What is the volume of the tent? Write your answer, and show your work.

3. Without doing the calculations to find the surface area of the tent, explain how to find its surface area. Either write an equation, or describe the process in words.

4. The tent holds 1,700 visitors. How many square feet (ft^2) of space does each visitor have in a full tent? Write your answer, and explain how you found it.

5. The number of tickets, t, that the circus sells is dependent on the price, p, in dollars. The relationship can be modeled by the equation $t = 1700 - 100p$. At what ticket price p will the circus make the most money?