Mission: All students will graduate prepared and ready for college or career.
Problem Set A

You must draw a diagram to solve each problem.

1. WORM JOURNEY

A worm is at the bottom of a 12-foot wall. Every day the worm crawls up 3 feet, but at night it slips down 2 feet. How many days does it take the worm to get to the top of the wall?
Pre-Ap Connections

Welcome

Teresa Bryant
Introductions

Name

Campus

Subjects
What does it mean to be in an advanced class?

Visit in your group for a minute---

What is the difference in “on level” and “PreAP”? How are the classes different? How are they the same?

one minute
How do we want to see advanced classes?

Access and equity—college board

Not about assignments and homework, it’s about justifying and learning. Expanding the knowledge and understanding of all students.
Why connections for MISD teachers

Vertical planning---consistency for our students

AP Grading---consistency for our students

Expectations---consistency for our students
How do we increase the level of knowledge and understanding and not just give more work or move faster?

Discussion, thought, conversation, writing, listening……
So we want the students to discuss, justify, listen, think.....

What are some ways we can do that?
One of these things is not like the other.....

Talking
Thinking
Listening
justifying
Which one doesn’t belong?
How do they all belong?

<table>
<thead>
<tr>
<th>Slope</th>
<th>Zero</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>Direct Variation</td>
</tr>
</tbody>
</table>
Which one doesn’t belong? Why?

How are they alike?

How are they different?

3.14

\(\pi\)

\(\frac{22}{7}\)

3.14
Which one doesn’t belong? Why?

How are they alike?

How are they different?

https://wodb.ca/
Listening—
criss x cross vocabulary

Use as a end of class, use as a quick vocab check

<table>
<thead>
<tr>
<th>Vocabulary Choices:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymptote</td>
</tr>
<tr>
<td>y-Intercept</td>
</tr>
<tr>
<td>axis of symmetry</td>
</tr>
<tr>
<td>parent function</td>
</tr>
<tr>
<td>exponential growth</td>
</tr>
<tr>
<td>polynomial</td>
</tr>
</tbody>
</table>
Vertical----using calculus problems

Calculus 2005 AB 1

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Let R be the shaded region in the first quadrant enclosed by the y-axis and the two linear functions shown above. Let S be the shaded region in the first quadrant enclosed by the graphs of the linear function, the vertical line and the semi-circle centered at (8,8).

1. Find the area of region S.
2. Determine the equations for lines AE and BC.
3. Find the perimeter of region R.
4. Give the coordinates of the points A, B, C, D, and E.
5. What is the length of segment AB?
6. Solve (algebraically) the system of equations for lines AE and BC.
7. Draw a line segment perpendicular to the y-axis to point C. What is the length of this segment?
8. Describe the solid formed when region R is revolved around the y-axis.
9. Find the perimeter of region S.
10. Find the area of region R.
11. Find the volume of the solid formed by revolving region R around the y-axis.
12. Think of at least two more questions.
Grading---

As we prepare students for AP classes:
The work is just as important as the answer.
Justification is just as important as the answer.

Grade examples in class with students.
Grade 8 released question

What is the solution to this equation?

\[ 2x + 3 = x - 4 \]

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

**Work this problem on your paper, show all work and justify your answer.**
Given \( f(x) = \frac{1}{3}(4 - x)^2 \), what is the value of \( f(16) \)?

Record your answer and fill in the bubbles on your answer document.

Work this problem on your paper, show all work and justify your answer.
Find the x and y intercepts and graph the line. Your x and y intercepts MUST be written as a point.

1) \(4x + 5y = 20\)

2) \(2x + y = 2\)

Work this problem on your paper, show all work and justify your answer.
Contact info

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