# Classroom Assessment Techniques (CATs)

## Speaker: Jo Harrington

# The four steps to completing a CAT:

- Choose a learning goal to assess
- Choose an assessment technique and apply it
- Analyze the data and respond to it
- Document the assessment

MATH 1828
COLLEGE ALGEBRA

Name_____

*Directions: Carefully work each problem and clearly mark your answer:*

1) Write the equation of the line passing through the points: (-1, 3) and (2, -5).

2) Write the equation of the line which passes through the point (0, -2) and is perpendicular to the line: $y = 4x - 6$

3) State the domain of the following function: $f(x) = \sqrt{x-6}$

4) Given the function, $f(x) = 5x + 1$, find $f(-1)$:

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*Directions: Carefully work each problem and clearly mark your answer:*

2) Write the equation of the line passing through the points: (-1, 3) and (2, 5)

5) Write the equation of the line which passes through the point (0, 1) and is perpendicular to the line: $y = 4x$

**CLASS AVERAGE: 70%**

**CLASS MEDIAN: 88%**

3) State the domain of the following function: $f(x) = \sqrt{x-6}$

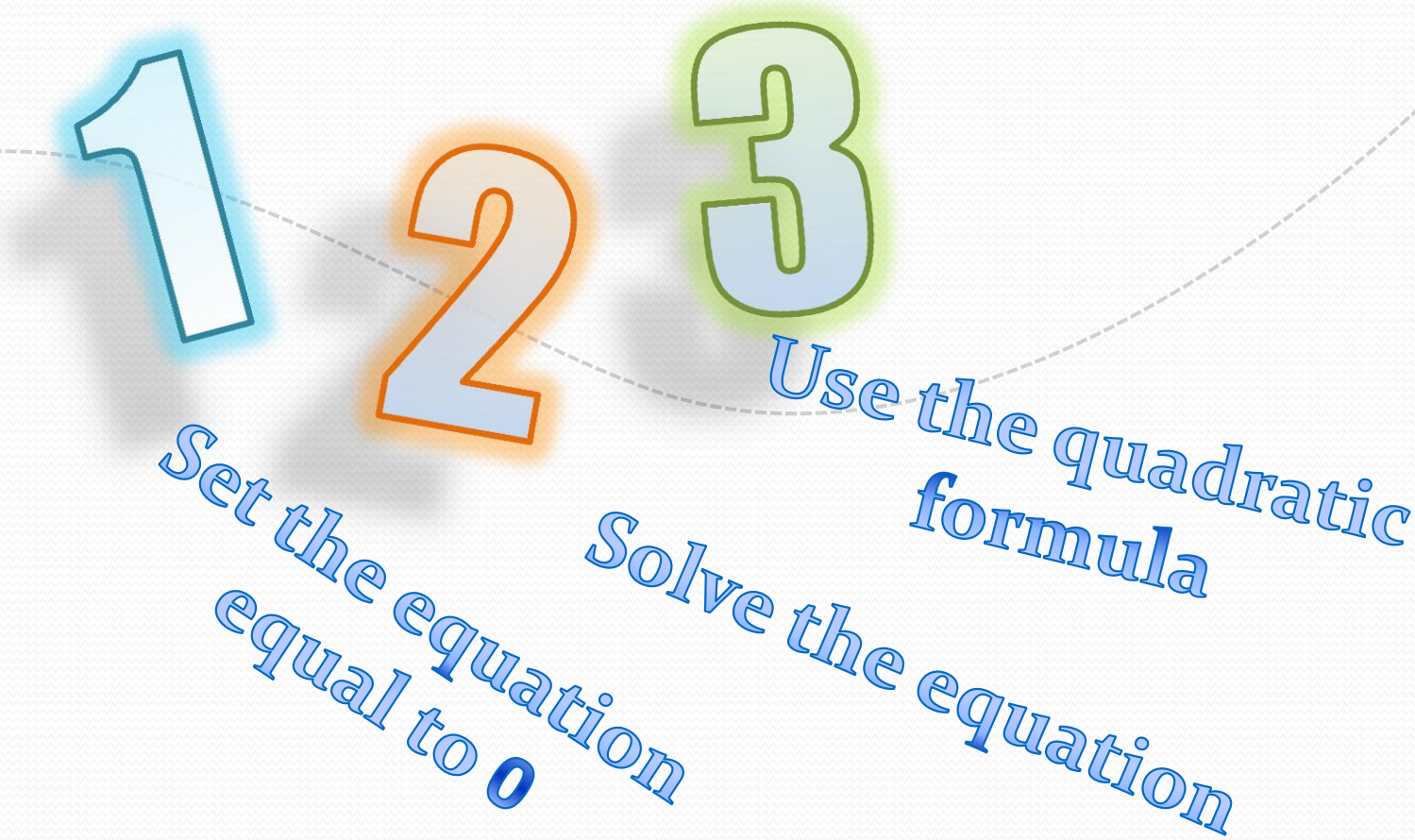
4) Given the function, f(x) = 5x + 1, find f(-1):

# Question Level Analysis

| # | Competency | % Correct |
|---|---|---|
| 1 | Find the equation of a line | 97% |
| 2 | Find a perpendicular line | 87% |
| 3 | Find the domain of a function | 73% |
| 4 | Evaluate a function | 63% |
| 5 | Determine if a given equation is a function | 77% |
| 6 | Find the zeroes of a function | 10% |
| 7 | Find the composition of two functions | 70% |
| 8 | Find the inverse of a function | 90% |

6) Find all zero(s) of the following function: $f(x) = x^2 - 5x - 8$

# Determine the zeros of a function.



# CATs

- **Nods/Audible**
  - "So, to find the zeros of a function, we first set the equation equal to five, right?"
  - "Oh, then to find the zeros of a function, we first evaluate the equation at zero."

# CATs

- **Documented Problem Solving/Walk-About**
  - Solve the following equation for x, showing all steps:

    $3x - 6 = 0$
  - Solve the following equation for x, showing all steps:

    $x^2 - 4x - 5 = 0$
  - Solve the following equation for x, showing all steps:

    $x^2 - 3x - 7 = 0$

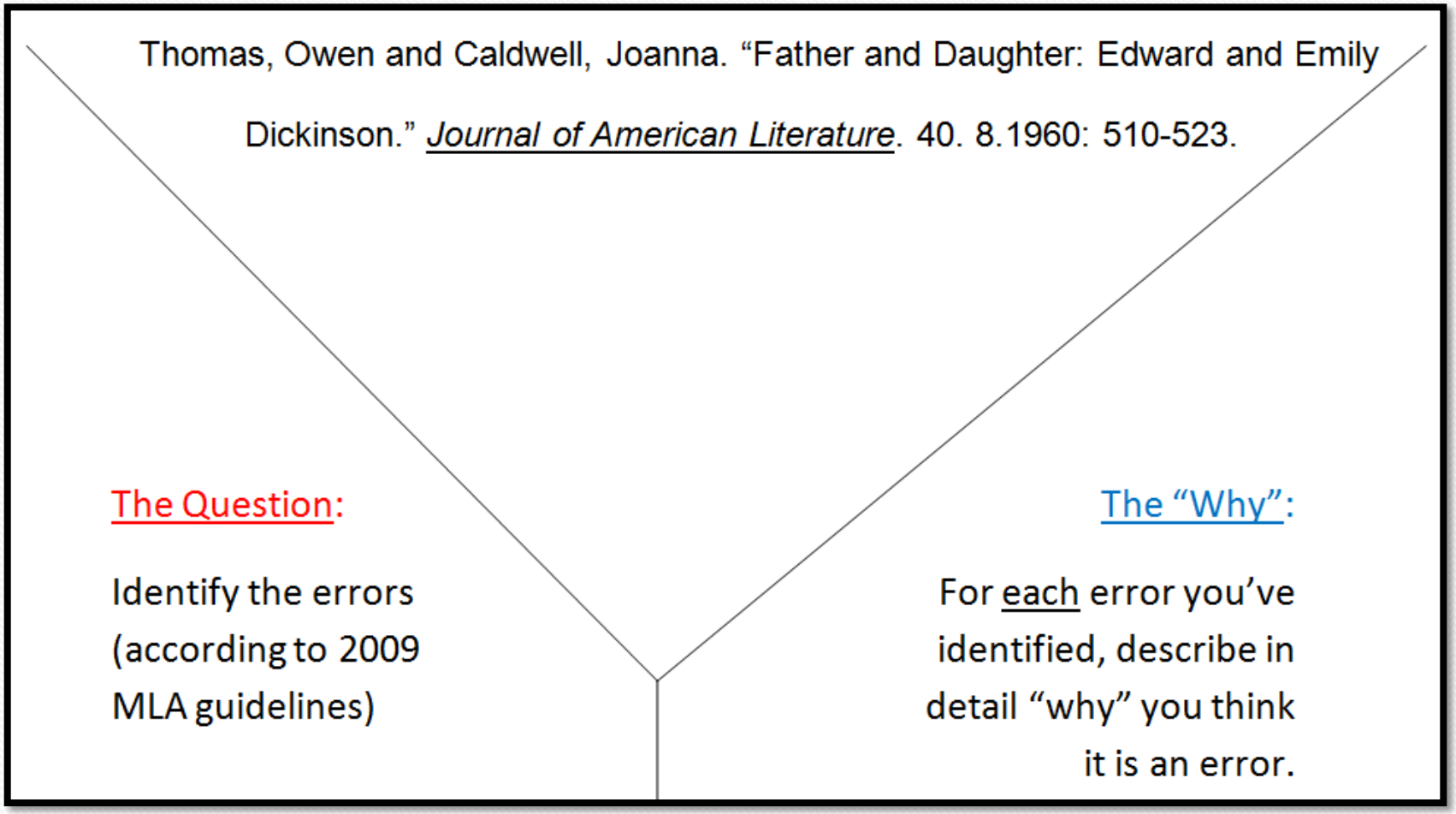
# CATs

- **Background Knowledge Probe**

  Write out the quadratic formula used to solve:

  $$ax^2 + bx + c = 0$$

# CATs
# "Y" Diagram



# CATs
# Muddiest Point

**Unit 2: Chapters 3 & 4 - MUDDIEST-POINT**

Let me know what isn't making sense and I will try and add more explanation, more examples, more something until it does.

**Assignment: Complete by Thursday night (5pts for participation).**

**Any Questions?**

**Answer the following question: As you go through the material for this chapter, what is lacking, what needs more explanation? In other words, what is your "Muddiest Point?" If there is nothing specific at this point, then use this as an opportunity for you to ask a question (over any of the assignments) as you would in class.**

**Be sure to review the threaded discussion throughout the week to learn from the**