

imagine learning

Illustrative Mathematics.

Handout

Surfacing Student Thinking to Assess for Understanding

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Step 1: Navigate to <u>imaginelearning.com/pdsession</u> Step 2: Please fill out the top section with your information. Step 3:

- Today, I am being trained on **Core Curriculum** then **Illustrative Mathematics**.
- PD Specialist: Initial of First Name then click on (NAME)



Part 1:

Directions: Use the space below to record your thoughts after each watch.

Watch 1: What do you notice?

Watch 2: Identify examples of independent, collaborative, and unsurfaced thinking.

Watch 3: Identify what prompted each of your previous examples.





Part 2: Signs of Student Thinking

Directions: Look at the student work sample to answer the questions below.

10.3: Solution Pathways

For each equation, try to solve the equation using each method (dividing each side first, or applying the distributive property first). Some equations are easier to solve by one method than the other. When that is the case, stop doing the harder method and write down the reason you stopped.

3.
$$\frac{1}{4}(4+x) = \frac{4}{3}$$

 $\chi = 2.67$
4. $-10(x-1.7) = -3$
 $\chi = 2$
 $\chi = 4$
 $\chi = -1.33$
 $\chi = 4$
 $\chi = -1.33$
 $\chi = 4$
 $\chi = -1.33$
 $\chi = -1.333$
 $\chi = -1.3$

| What do you think the student understands? | How do you know? |
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Part 2: Monitoring through Targeted Questions

Directions: Review the chart of monitoring questions and, based on the student work sample, select three questions to ask. For each, explain the insights you'd expect to gain. Then, choose **one question** that wouldn't be helpful and explain why.



What is this problem about?

| Question | What insight do you expect to gain? |
|----------|-------------------------------------|
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| Question | Why wouldn't it be effective? |
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Part 3: Let's Plan to Surface Student Thinking

Directions: Select an activity from the next lesson you'll teach. Review the lesson's goals and teaching notes to anticipate possible student responses. Using this information, plan targeted questions to surface and assess student thinking as they engage with the activity.

| Lesson: | Activity: |
|--------------------------------------|--|
| What is the purpose of the activity? | What types of student problem-solving are you looking to notice? |
| Expected Student Response | Questions to Surface Thinking |
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