

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Interview #4: End of Unit

I am going to ask you some questions about fractions. I am very interested in how you come up with the answers, so it is important for you to tell me what you are thinking about. The interview will not be graded, so you do not have to worry about wrong answers. Are you ready?

#### Concept Questions

1. Display a bag of chips without counting or telling the child how many there are.
  - (A) Say: I want you to show me  $\frac{2}{3}$  using the chips as your model. Use as many chips as you want.
  
  - (B) Explain what you were thinking in order to solve this problem.
  
  - (C) Can you do this in another way? How are your two alike and different?
  
2. Read this to the student:

*Martin ate  $1\frac{2}{3}$  pizza.*

  - (A) Name the amount Martin ate in another way.

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(B) Draw a picture to verify your answer. Explain what the picture shows.

### Order Questions

#### [Same numerator]

3. Say: I am going to write 3 fractions

Write:  $\frac{1}{5}$   $\frac{1}{3}$   $\frac{1}{4}$

(A) Say: I want you to write them in order from smallest to largest.

(B) Say: Tell me how you know.

#### [Same numerator]

4. Say: I'm going to write two fractions.

Write:  $\frac{4}{35}$   $\frac{4}{29}$

(A) Say: Are they equal or is one less? Which one is less?

(B) Say: Tell me how you know.

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#### [Transitive]

5. Say: I'm going to write two fractions.

Write:  $8/12$   $3/7$

(A) Say: Are they equal or is one less? Which one is less?

(B) Say: Tell me how you know.

#### [Same Denominator]

6. Say: I'm going to write two fractions.

Write:  $27/64$   $19/64$

(A) Say: Are they equal or is one less? Which one is less?

(B) Say: Tell me how you know.

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#### [Residual]

7. Say: I'm going to write two fractions.

Write:  $\frac{4}{5}$   $\frac{9}{10}$

(A) Say: Are they equal or is one less? Which one is less?

(B) Say: Tell me how you know.

#### [Equivalence Questions]

8. Say: I'm going to write two fractions.

Write:  $\frac{3}{4}$   $\frac{9}{12}$

(A) Say: Are these fractions equal or is one less? Which one is less?

(B) Say: Tell me how you know.

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#### [Equivalence Questions]

9. Say: I'm going to write two fractions.

Write:  $\frac{6}{9}$   $\frac{4}{6}$

(A) Say: Are they equal or is one less? Which one is less?

(B) Say: Tell me how you know.

#### Concept of Unit Questions

10. Show and read the statement:

*Tina was building towers with cubes. Tina finished building  $1\frac{1}{3}$  towers. She used 12 cubes for these towers. How many cubes is one tower?*

Ask student to solve the problem. Provide unifix cubes. Ask students to talk aloud as they solve the problem.

11. (A) Say: This brown piece is  $\frac{4}{6}$  of some unit. What is the unit? Use the fraction circles to show me. Talk aloud as you do this.

(B) If correct ask this: This yellow piece is  $1\frac{1}{2}$  of some unit. What is the unit? Use the fraction circles to show me. Talk aloud as you do this.

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### Operations

12. Read this story to the student:

*Marty was making two types of cookies. He used  $\frac{1}{4}$  cup of flour for one recipe and  $\frac{2}{3}$  cup of flour for the other. How much flour did he use altogether?*

- (A) Say: Without working out the exact answer, give me an estimate that is reasonable. (If needed, provide clues: Is the answer  $>\frac{1}{2}$  or  $<\frac{1}{2}$ ? Is the answer  $>1$  or  $<1$ ?).
- (B) Say: Tell me what you were thinking to reach this estimate.
- (C) Say: Using fraction circles, act out how you would find the exact answer. Talk aloud as you solve the problem.
- (D) If the student was successful, ask student to record each step with the fraction circles with symbols.

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13. Read this story to the student:

*Martin and Jane each ordered small pizzas at Dominos. Jane ate  $\frac{5}{8}$  of her small pizza. Martin ate  $\frac{3}{4}$  of his small pizza. Who ate more? How much more?*

(A) Say: Without working out the exact answer, give me an estimate that is reasonable. (If needed, provide clues: is the answer  $>\frac{1}{2}$  or  $<\frac{1}{2}$ ? Is the answer  $>1$  or  $<1$ ?)?

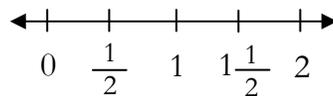
(B) Say: Tell me what you were thinking to reach this estimate?

(C) Say: Using fraction circles, (or paper folding) act out how you would find the exact answer. Talk aloud as you solve the problem.

(D) If the student was successful, ask the student to record each step with the fraction circles with symbols.

14. (A) Say: Tell me about where the answer to this problem would be on this numberline.

$$\frac{2}{3} + \frac{1}{6}$$



(B) Say: Tell me how you know.

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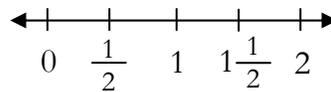
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(C) Say: Using paper and pencil, how can you figure out the exact answer?  
Explain what you are doing.

15. (A) Say: Tell me about where the answer to this problem would be on this numberline.

$$8/9 - 1/3$$



(B) Say: Tell me how you know.

(C) Say: Using paper and pencil, how can you figure out the exact answer?  
Explain what you are doing.