

Interview script

1. Fraction pie

Show the student the yellow pie diagram.

- a) What fraction of the circle is part B?
- b) What fraction of the circle is part D?

2. Pattern blocks

Place the three pattern blocks on the table (yellow hexagon, red trapezium and blue rhombus).

Please note, students are permitted to move the shapes to support them in answering these questions.

- a) How many blues would you need to cover the yellow?
You may move the blocks.
- b) Blue is what fraction of the yellow?
- c) How many blues would you need to cover the red?
If the student says '2' ask, "is it exactly 2"?
- d) Blue is what fraction of the red?
- e) If the yellow is one, what is the value of the blue?
- f) If the blue is one, what is the value of the red?

3. Dots array

Show the student the green array of dots (some shaded)

- a) What fraction of the dots is black?
- b) What is another name for that fraction?

4. Simple operators

Administer orally, to be done in student's head

- a) What is one-half of six?
- b) What is one-fifth of ten?
- c) What is two-thirds of nine?
- d) What is one third of a half?
After the student gives an answer to part d) ask:
How did you solve this one?
Did you think of a picture in your mind to solve this?
If "Yes" say: Please describe what you imagined.
- e) What is one-half of one-third?
After the student gives an answer to part e) ask:
How did you solve this one?
Did you think of a picture in your mind to solve this?
If "Yes" say: Please describe what you imagined.

5. Fractions on a number line

Give the student a blank piece of paper and pencil.

- a) Please draw a number line and put two thirds on it.
If child does not mark 0 or 1, ask "Where does zero go? Where does one go?"

Give the child the number line from 0 to 6 (white page) and a pencil.

- b) Please mark six thirds and label it for me.
- c) Please mark eleven sixths and label it for me.

6. Pizza

Show the student the pale green picture of the 5 girls and the 3 pizzas.

Three pizzas were shared equally between 5 girls.

- a) How much pizza does each girl get?
- b) How did you work it out?

Provide the student with pencil and paper to draw if necessary.

If the student responds with "3 pieces" ask: Could you tell me what fraction of a pizza that is?

7. Draw me a whole

Show the student the pink rectangle. Provide a pencil.

- a) If this is two-thirds of a shape, please draw me the whole shape.
Please explain your thinking.

If unsuccessful, go to Question 8.

Show the student the blue rectangle. Provide a pencil.

- b) If this is four-thirds, please show me the whole.
How did you work this out?

8. Construct a sum

Place the yellow number cards and the empty fraction sum in front of the student.

- a) Choose from these numbers to form two fractions that when added together are close to one, but not equal to one. Record the student's final decision.
- b) Please explain how you know the answer would be close to one.
Record any change of solution.

9. Fraction pairs

Show the student each gold fraction pair card, one at a time.

Please point to the larger fraction.....
How did you decide?

Don't allow use of pencil and paper

10. Decimals on a number line

Show the pink, blue and yellow cards in turn and ask:

- a) What number is this point on the number line? (point to the arrow)
- b) What number is this point on the number line? (point to the arrow)
- c) How much medicine in mLs is in this syringe?

11. Decimal density

Show the mauve card

- a) Can you name a decimal between 0.1 and 0.11?
- b) How many decimals are between 0.1 and 0.11?

12. Make me a decimal

Place the yellow cards randomly on the table.

Here are some number cards and some blanks that could be any number.

- a) Could you use some of these cards to show me what *two tenths* would look like as a decimal?
- b) Could you use some of these cards to show me what *27 thousandths* would look like as a decimal?

- c) Could you use some of these cards to show me what *ten tenths* would look like as a decimal?
d) Could you use some of these cards to show me what *27 tenths* would look like as a decimal?

13. Ordering decimals

Place the orange cards randomly on the table.

Please put these numbers in order from smallest to largest.

14. Connecting fractions, decimal and percents

Show the child the blue card of the shaded grid.

There are one hundred squares here. Six have been shaded.

- a) What fraction of squares has been shaded?
b) Is there another fraction name for that?
c) How would you write that as a decimal?
d) Is there a percentage name for that?

15. Decimal Comparison Test

Give the student the decimal comparison pairs.

For each pair, choose the number which is larger.

16. Decimal operations

Show the student the pink card with the two operations.

- a) Which of these would result in a larger answer?

What is the answer to each of these?

- b) 8×0.1
c) $8 \div 0.1$
d) Please explain how you found each answer.

17. Pod Tunes or New Tunes?

Show the student the two music cards.

Mental strategies are preferred but pen and paper may be offered if this is helpful.

Sometimes, people buy cards to download songs from the internet.

Here are two such cards—Pod Tunes and New Tunes.

With Pod Tunes, you get 16 songs for \$24.

With New Tunes you get 12 songs for \$20.

- a) Which music card is the better value?
b) Please explain how you know.

18. Reserve bank and Chocolate Milk

Give the student some blank paper and a pen.

Not long ago, the Reserve Bank announced that interest rates were going up one quarter of one percent.

- a) How would you write one quarter of one percent with numbers?
b) Could you write it a different way, that is still equal to one quarter of one percent?

Show the student the chocolate milk drink and percentage card.

Pen and paper can be provided if this is helpful.

- c) This chocolate milk claims that one glass has 2.5 milligrams of Vitamin B6, which is 125% of the recommended daily allowance of B6. What would be the exact daily allowance of vitamin B6?

19. Cordial

Show the student the cordial card and ratio card.

A cordial drink needs to be made up of syrup and water in the ratio 1:4.

- a) If you make enough cordial for three glasses, each containing 200 mL, how much syrup would you need for this?
- b) Please explain how you worked this out.

20. Cheese Please

*A calculator is required for this question.
Show the student the blue cheese card.*

1 kilogram of cheese costs \$12.59.

- a) Estimate round about how much 0.34 kg would cost ... Just round about.
- b) How did you get your estimate?
- c) Show me on the calculator how to get the exact answer.