GloSS

INTERVIEW 3

Instructions

- Commence the interview with the section targeted just below the Number Framework stage you think the student is at. Be willing to move on quickly, or even jump some sections if this level is too low. However, if the student finds the first section they are given too hard, go back to a previous section that they can answer.

- Ask the student **all** the tasks within a section. Generally these are three tasks on two face-to-face pages.

- Read each task to the student and show them the related Task Card.

- Give the student time to answer the question (you may need to wait for a few minutes).

- Prompt the student if you need to. For example, ask *"How did you work that out?"* or *"Can you talk me through what you were thinking?"* Do not ask these questions if the student answers quickly and it is obvious that they "just knew" it.

- Allow the student the opportunity to demonstrate **higher level strategies**. If they use a simple strategy (e.g., counting) ask *"Can you do it another way?"*

- Use the scoring guide below each task to determine the Number Framework Stage associated with the student's response.

- Circle the relevant stage on the recording sheet.

- Record their strategy in the space under "Observations".

- Use the decision rule provided at the end of each section to decide whether to continue the interview. If there is any doubt or if you think the student may be capable of showing higher strategies, **continue** the interview.

- Questions are designed so that they can be answered mentally.

MATERIALS NEEDED

- 20 counters.
- Two A5 sized cards to cover counters and isolate tasks.
- Set of Task Cards.
- One recording sheet per student.

INTERVIEW SCHEDULE

Section 1 TARGET: Stage 1
One-to-one counting

TASK 1

ACTION: *Place 7 counters of the same colour on the table.*

SAY: How many counters are there?

Stage	Strategy observed
0	**Student cannot count 7 objects**
1	**Correctly counts the 7 objects**

DECISION: If "1" is circled in **Task 1**, CONTINUE the interview.

If "0" is circled, rate the student at Stage 0 and STOP the interview.

Section 2 TARGET: Stages 2–3 or 4
Counting from one or Advanced counting

TASK 2

INTERVIEW 3 TASK 2

$$2 + 4 = \square$$

SAY: Please hold out your hands for me.

SAY: Here are 2 counters.

SAY: Here are another 4 counters.

SAY: How many counters have you got altogether?

ACTION: *Place 2 counters in the student's hand.*

ACTION: *Place 4 counters in their other hand.*

ACTION: *Close the student's hands to encourage imaging.*

ACTION: *Allow the student to open their hands if they find imaging difficult.*

Stage	Strategy observed
1	**Cannot solve the addition problem** (Stage 1)
2–3	**Physically counts all the objects from 1 on materials** (Stage 2)
	Correctly counts all the items from 1 by imaging (Stage 3)
4 or higher	**Counts on** e.g., 3, 4, 5, 6 **or** 5, 6
	Knows 2 + 4

DECISION: If **either** "2–3" **or** "4" are circled in **Task 2**, CONTINUE the interview.

If "1" is circled, STOP the interview. If in any doubt, CONTINUE the interview.

Section 3 TARGET: Stages 4 or Early 5
Advanced counting or Early additive part-whole

*Do all **three** tasks on these two pages.*

TASK 3

INTERVIEW 3 TASK 3

8 + 5 = □

ACTION: *Place 8 counters under a card then place 5 under another card.*
SAY: Here are 8 counters, and here are 5 counters.
How many counters are there altogether?

Stage	Strategy observed
3	**Cannot solve the problem** (After removing the cards – Stage 1)
	Counts all objects from 1 on materials (Stage 2) **e.g.,** 1, 2, 3, …, 13
	Counts all objects from 1 by imaging (Stage 3) **e.g.,** 1, 2, 3, …, 13
4	**Counts on** (Stage 4) **e.g.,** 9, 10, 11, 12, 13 **or** 6, 7, …, 12, 13
Early 5 or higher	**Uses a part-whole strategy e.g.,** - Making to ten e.g., 8 + 2 = 10; 10 + 3 = 13 - Doubling with compensation e.g., 5 + 5 = 10; 10 + 3 = 13 **or** 8 + 8 = 16; 16 − 3 = 13 - Addition fact e.g., 8 + 5 = 13

TASK 4

INTERVIEW 3 TASK 4

There are 6 houses in each row.
There are 3 rows of houses.
How many houses are there altogether?

SAY: There are 6 houses in each row.
SAY: There are 3 rows of houses.
SAY: How many houses are there altogether?

ACTION: *Sweep one row with your finger*
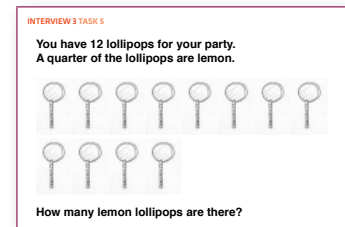**ACTION:** *Point to each row one by one*

Stage	Strategy observed
3	**Cannot solve the problem**
	Counts all objects from 1 on materials (Stage 2) **e.g.,** 1, 2, …, **6**, 7, …, **18**
	Counts all objects from 1 by imaging (Stage 3) **e.g.,** 1, 2, …, **6**, 7, …, **18**
4	**Skip counting** (Stage 4) **e.g.,** 6, 12, 18 [**or** 3, 6, 9, 12, 15, 18]
Early 5 or higher	**Uses an additive or multiplicative strategy e.g.,** - Repeat addition e.g., 6 + 6 + 6 = 18 or 6 + 6 = 12; 12 + 6 = 18 - Multiplication strategies e.g., 2 × 6 = 12; 12 + 6 = 18 - Multiplication fact e.g., 3 × 6 = 18

TASK 5

ACTION: *Provide 12 counters (lollipops).*
Allow the student access to these counters if necessary.

SAY: You have 12 lollipops for your party.
A quarter of the lollipops are lemon.
How many lemon lollipops are there?

Note: Say "fourth" instead of "quarter" if this is more familiar to your student.

Stage	Strategy observed
2–4	**Cannot solve the problem** **Equally shares the lollipops, on materials or by imaging** (Stage 2–4)
Early 5 or higher	**Uses an additive or multiplicative strategy e.g.,** - Additive partitioning e.g., 6 + 6 = 12 and 3 + 3 + 3 + 3 = 12 - Multiplication or division strategy e.g., 3 × 3 = 9; 9 + 3 = 12 - Multiplication or division fact e.g., 4 × 3 = 12 or 12 ÷ 4 = 3

DECISION: If **any** "E5" are circled in **Tasks 3, 4** or **5**, **or** if the "4s" are circled in **both Task 3** and **Task 4**, CONTINUE the interview.
Otherwise STOP the interview. If in any doubt, CONTINUE the interview.

Section 4 TARGET: Stage 5
Early additive part-whole

*Do all **three** tasks on these two pages.*

TASK 6

INTERVIEW 3 TASK 6

Tui has $36.
She needs $58 to buy a kitten.

How much more does she need to save?

SAY: Tui has $36.

She needs $58 to buy a kitten.

How much more does she need to save?

Stage	Strategy observed

Early 5	**Cannot solve the problem** or **Uses an earlier numeracy stage**
	
	Counting on or **Counting back** (Stage 4) **e.g.,** 37, 38, …, 58
	
	Skip counting in tens and ones (Stage 4) **e.g.,** [36] 46, 56, 57, 58
	
	Repeat addition in tens and ones (Stage E5) **e.g.,**
	   58 − 10 = 48; 48 − 10 = 38; 38 − 2 = 36; 20 + 2 = 22 **or**
	   36 + 10 = 46; 46 + 10 = 56; 56 + 2 = 58; 20 + 2 = 22
	
	Mix of counting and part-whole strategies (Stage E5) **e.g.,**
	   36 + 4 = 40; 40 + 10 = 50; 51, 52, … , 57, 58

5 or higher	**Uses a part-whole strategy e.g.,** - Place value partitioning e.g., (50 − 30) + (8 − 6) = 20 + 2 = 22 - Adding on in parts e.g., 36 + 20 = 56; 56 + 2 = 58; 20 + 2 = 22 - Making to ten e.g., 36 + 4 = 40; 40 + 10 = 50; 50 + 8 = 58; 4 + 10 + 8 = 22

TASK 7

INTERVIEW 3 TASK 7

There were 45 students at a quiz night.
Each team had 5 students in it.

How many teams were competing in the quiz?

SAY: There were 45 students at a quiz night.

Each team had 5 students in it.

How many teams were competing in the quiz?

Stage	Strategy observed
Early 5	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Skip counting** (Stage 4) **e.g.,** 5, 10, 15, …, 45 **Repeated addition** (Stage E5) **e.g.,** 5 + 5 + 5 + … + 5 = 45

5
or higher
	Uses an additive or multiplicative strategy e.g.,
	- Additive strategies
	   e.g., 5 + 5 =10; 10 + 10 = 20; 20 + 20 = 40; 40 + 5 = 45; 8 + 1 = 9
	- Derive from multiplication facts
	   e.g., 4 × 5 = 20; 20 + 20 = 40; 40 + 5 = 45; 8 + 1 = 9
	- Multiplication or division facts e.g., 5 × 9 = 45 **or** 45 ÷ 5 = 9

TASK 8

SAY: Kimberley irons her 8 T-shirts in 4 minutes.
How long does it take her to iron 1 T-shirt?

INTERVIEW 3 TASK 8
Kimberley irons her 8 T-shirts in 4 minutes.
How long does it take her to iron 1 T-shirt?

Stage	Strategy observed
Early 5	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Incorrect additive strategy** (Stage 4) **e.g.,** 4 + 4 = 8; 1 + 4 = 5 minutes **or** 4 + 4 = 8 so 1 + 1 = 2 minutes
5 or higher	**Uses a proportional approach e.g.,** - Additive strategies e.g., $\frac{1}{2} + \frac{1}{2} + \ldots + \frac{1}{2} = 4$ **or** 4 + 4 = 8 and $\frac{1}{2} + \frac{1}{2} = 1$ so the answer is $\frac{1}{2}$ - Multiplicative strategies e.g., 4 is half of 8 so it's half of 1 minute **or** $4 \div 8 = \frac{1}{2}$ minute - Rate strategies e.g., 8:4 = 4:2 = 2:1 so the answer is $\frac{1}{2}$ a minute (= 30 seconds)

DECISION: If **any** "5" are circled in **Tasks 6, 7** or **8**, CONTINUE the interview.
If **only** "E5" are circled, STOP the interview. If in any doubt, CONTINUE the interview.

Section 5 TARGET: Early Stage 6
Advanced additive part-whole

*Do all **three** tasks on these two pages.*

TASK 9

SAY: There were 128 lambs in a field.
Another 74 lambs joined them.
How many lambs were there altogether?

INTERVIEW 3 TASK 9

**There were 128 lambs in a field.
Another 74 lambs joined them.**

How many lambs were there altogether?

Stage	Strategy observed
5	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Skip counting in tens and ones** (Stage 4) **e.g.,** [128] 138, ..., 198; 199, 200, 201, 202 **Repeat addition in tens and ones** (Stage E5) **e.g.,** 128 + 10 + 10 + … + 10 = 198; 199, 200, 201, 202 **Mix of counting and part-whole strategies** (Stage E5) **e.g.,** 128 + 10 + 10 + … + 10 = 198; 198 + 2 + 2 = 202 **Attempts part-whole strategy with error** (Stage E5) **e.g.,** 192 (no carrying)
Early 6 or higher	**Uses a part-whole strategy e.g.,** - Place value partitioning e.g., (120 + 70) + (8 + 4) = 190 + 12 = 202 - Adding on in parts e.g., 128 + 70 = 198; 198 + 4 = 202 **or** 120 + 74 = 194; 194 + 8 = 202 - Making to ten e.g., 128 + 2 = 130; 130 + 70 = 200; 200 + 2 = 202

TASK 10

SAY: Ra has 6 packets of biscuits.
There are 15 biscuits in each packet.
How many biscuits does Ra have?

INTERVIEW 3 TASK 10

**Ra has 6 packets of biscuits.
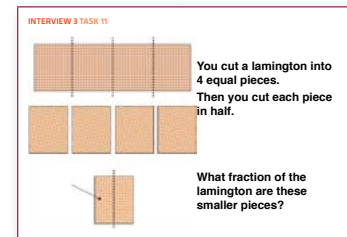There are 15 biscuits in each packet.**

How many biscuits does Ra have?

Stage	Strategy observed
5	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Uses an additive strategy e.g.,** - Skip counting (Stage 4) e.g., 15, 30, 45, 60, 75, 90 [or 6, 12, 18, …, 90] - Repeated addition e.g., (Stage E5) e.g., 15 + 15 + ... + 15 = 90 [**or** 6 + 6 + ... + 6 = 90] - Doubling additively (Stage 5) e.g., 15 + 15 = 30; 30 + 30 = 60; 60 + 30 = 90
Early 6 or higher	**Uses a multiplicative strategy e.g.,** - Place value partitioning e.g., 6 × 10 = 60; 6 × 5 = 30; 60 + 30 = 90 - Derived from basic fact e.g., 6 × 10 = 60; 60 + 6 + 6 + 6 + 6 + 6 = 90 - Halving and doubling e.g., 6 × 15 = 3 × 30 = 90

TASK 11

SAY: You cut a lamington into 4 equal pieces.

Then you cut each piece in half.

What fraction of the lamington are these smaller pieces?

INTERVIEW 3 TASK 11

You cut a lamington into 4 equal pieces.
Then you cut each piece in half.

What fraction of the lamington are these smaller pieces?

Stage	Strategy observed
5	**Cannot solve the problem OR Uses an earlier numeracy stage** **Counting strategy** (Stage 4) **e.g.,** 1, 2, 3, ..., 8 so the pieces are eighths
Early 6 or higher	**Uses an additive or multiplicative strategy e.g.,** - Additive strategy e.g., 2 + 2 + 2 + 2 = 8, so these pieces are quarters, and the smaller ones are eighths - Multiplicative strategy e.g., 4 × 2 = 8 so the pieces are eighths

DECISION: If **any** "E6" are circled in **Tasks 9, 10** or **11**, CONTINUE the interview.

If **only** "5" are circled, STOP the interview. If in any doubt, CONTINUE the interview.

Section 6 TARGET: Stage 6
Advanced additive part-whole

*Do all **three** tasks on these two pages.*

TASK 12

SAY: Mitchell had 231 toy cars in his collection.

He sold 78 of them.

How many cars did he have left?

Stage	Strategy observed
Early 6	**Cannot solve the problem** or **Uses an earlier numeracy stage**
	Mix of counting and part-whole strategies (Stage E5) **e.g.,** [231] 221, 211, 201, ..., 161; 161 − 1 = 160; 160 − 7 = 153
	Attempts part-whole strategy with error (Stage 5) **e.g.,** 231 − 80 = 151; 151 − 2 = 149 (compensates in the wrong direction)
6 or higher	**Uses a part-whole strategy e.g.,** - Place value partitioning e.g., (230 − 70) + (1 − 8) = 160 − 7 = 153 - Making to hundreds e.g., 231 − 31 = 200; 78 − 31 = 47; 200 − 47 = 153 - Subtracting tidy number and compensation e.g., 231 − 80 = 151; 151 + 2 = 153 - Equal additions e.g., 231 − 78 = 253 − 100 = 153

TASK 13

SAY: The teacher bought 48 packs of pencils at the beginning of the year.

There were 5 pencils in each pack.

How many pencils did she buy?

Stage	Strategy observed
Early 6	**Cannot solve the problem** or **Uses an earlier numeracy stage**
	Uses additive strategies e.g., - Doubling additively (Stage 5) e.g., 48 + 48 = 96; 96 + 96 = 192; 192 + 48 = 240
6 or higher	**Uses a multiplicative strategy e.g.,** - Place value partitioning with basic facts e.g., (5 × 40) + (5 × 8) = 200 + 40 = 240 - Doubling and halving e.g., 48 × 5 = 24 × 10 = 240 - Rounding and compensation e.g., (5 × 50) − (5 × 2) = 250 − 10 = 240

TASK 14

SAY: Three friends share two pizzas.
       What fraction of a pizza does each friend get?

Stage	Strategy observed
Early 6	**Cannot solve the problem** or **Uses an earlier numeracy stage**
	Uses an additive strategy (Stage 5) **e.g.,** $\frac{1}{2} + \frac{1}{2} + \frac{1}{2}$ each, the remaining half is cut into three pieces, but cannot name the combined fraction.
6 or higher	**Uses a multiplicative strategy e.g.,** Two lots of $\frac{1}{3}$ of 1 = $2 \times \frac{1}{3}$ = $\frac{2}{3}$ **or** 2 out of 6 pieces is $\frac{2}{3}$ of one pizza **or** $3 \times \frac{1}{2} = 1\frac{1}{2}$; $\frac{1}{3}$ of $\frac{1}{2} = \frac{1}{6}$; $\frac{1}{2} + \frac{1}{6} = \frac{2}{3}$

DECISION: If **any** "6" are circled in **Tasks 12, 13** or **14**, CONTINUE the interview.
        If **only** "E6" are circled, STOP the interview. If in any doubt, CONTINUE the interview.

Section 7 TARGET: Early Stage 7
Advanced multiplicative part-whole

*Do all **three** tasks on these two pages.*

TASK 15

SAY: The electrician has 5.33 metres of cable.

He uses 2.9 metres on a job.

How much cable is left?

Stage	Strategy observed
6	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Misinterprets decimal place value** (Stage 6) **e.g.,** - Ignores the decimal points e.g., $533 - 29 = 504$ - Treats numbers after the decimal as whole numbers e.g., $5.33 - 2.9 = (5 - 2) + (0.33 - 0.9 \text{ “=” } 0.24) = 3.24$
Early 7 or higher	**Uses part-whole strategies e.g.,** - Taking off in parts e.g., $5.33 - 2.0 = 3.33; 3.33 - 0.9 = 2.43$ - Place value partitioning e.g., $(5 - 2) + (0.3 - 0.9) + 0.03 = 3 - 0.6 + 0.03 = 2.43$ - Making to ones e.g., $2.9 + 0.1 = 3.0; 3.0 + 2.33 = 5.33; 0.1 + 2.33 = 2.43$ - Rounding and compensation e.g., $5.33 - 3.0 = 2.33; 2.33 + 0.1 = 2.43$

TASK 16

SAY: Solomona has ordered 81 tennis balls.

They are in cans of 3 balls.

How many cans should there be?

Stage	Strategy observed
6	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Uses additive strategies (Stage 5) e.g.,** - Additive doubling or tripling e.g., $3 + 3 + 3 = 9; 9 + 9 + 9 = 27; 27 + 27 + 27 = 81$ **Uses a mix of additive and multiplicative strategies (Stage 6) e.g.,** $20 \times 3 = 60; 60 + 3 + 3 + 3 + \ldots + 3 = 81$ so the answer is $20 + 7 = 27$
Early 7 or higher	**Uses multiplicative strategies e.g.,** - Derive from basic facts e.g., $(3 \times 20) + (3 \times 7) = 60 + 21 = 81; 20 + 7 = 27$ **or** $30 \times 3 = 90; 90 - (3 \times 3) = 90 - 9 = 81; 30 - 3 = 27$ - Proportional adjustment e.g., $81 \div 9 = 9$ so $81 \div 3 = 3 \times 9 = 27$

TASK 17

SAY: Mihi and Josh have three-quarters of a cake.
They share it equally.
How much cake does each person get?

Note: Say "three-fourths" instead of "three-quarters" if this is more familiar to your student.

Stage	Strategy observed
6	**Cannot solve the problem** or **Uses an earlier numeracy stage**
Early 7 or higher	**Images three quarters, and equally shares e.g.,** $\frac{1}{4}$ plus ($\frac{1}{2}$ of $\frac{1}{4}$) = $\frac{1}{4} + \frac{1}{8} = \frac{2}{8} + \frac{1}{8} = \frac{3}{8}$ **Uses a multiplicative strategy e.g.,** $\frac{1}{2}$ of $\frac{1}{4}$ is $\frac{1}{8}$ so $\frac{1}{2}$ of $\frac{3}{4} = 3 \times \frac{1}{8} = \frac{3}{8}$

DECISION: If **any** "E7" are circled in **Tasks 15, 16** or **17**, CONTINUE the interview.
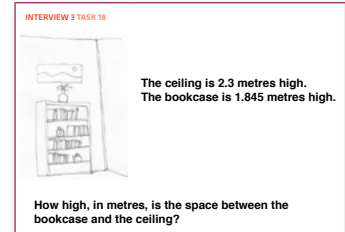If **only** "6" are circled, STOP the interview. If in any doubt, CONTINUE the interview.

Section 8 TARGET: Stage 7
Advanced multiplicative part-whole

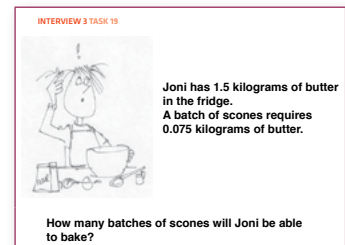*Do all **three** tasks on these two pages.*

TASK 18

SAY: The ceiling is 2.3 metres high.

The bookcase is 1.845 metres high.

How high, in metres, is the space between the bookcase and the ceiling?

Stage	Strategy observed
Early 7	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Misinterprets or ignores decimal place value** (Stage 6) **e.g.,** 2.3 − 1.845 = (2 − 1) + (0.3 − 0.845) "=" 1 − 0.842 = 0.158 **or** 0.152
7 or higher	**Uses part-whole strategies e.g.,** - Place value partitioning e.g., (2 − 1) + (0.3 − 0.845) = 1 − 0.545 = 0.455 **or** (2.3 − 1.8) + (0 − 0.045) = 0.5 − 0.045 = 0.455 - Making to ones e.g., 1.845 + 0.155 = 2.0; 0.155 + 0.3 = 0.455 - Rounding and compensation e.g., 2.3 − 1.9 = 0.4; 0.4 + 0.55 = 0.455

TASK 19

SAY: Joni has 1.5 kilograms of butter in the fridge.

A batch of scones requires 0.075 kilograms of butter.

How many batches of scones will Joni be able to bake?

Stage	Strategy observed
Early 7	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Attempts multiplication strategy** (Stage 6)
7 or higher	**Uses multiplication strategies e.g.,** 0.075 × 20 = 1.5 [because 75 × 2 = 150] so the answer is 20 **or** 1500 ÷ 75 (simplify by 5) = 300 ÷ 15 = 60 ÷ 3 = 20 **or** 2 batches need 2 × 0.075 = 0.15; 10 × 0.15 = 1.5; 2 × 10 = 20

TASK 20

One-fifth ($\frac{1}{5}$) of the birds on the lake are swans.
There are 40 other birds on the lake.

How many birds are on the lake altogether?

SAY: One-fifth of the birds on the lake are swans.
There are 40 other birds on the lake.
How many birds are on the lake altogether?

Stage	Strategy observed
Early 7	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Uses additive strategies** (Stage 6) **e.g.,** $\frac{4}{5}$ is 40 because 10 + 10 + 10 + 10 = 40 so $\frac{1}{5}$ is 10; $\frac{5}{5}$ is 40 + 10 = 50
7 or higher	**Uses a multiplicative strategy e.g.,** $\frac{4}{5}$ is 40 because 4 × 10 = 40, so $\frac{5}{5}$ is 5 × 10 = 50 $\frac{4}{5}$ is 40 so $\frac{1}{5}$ is 40 ÷ 4 = 10; $\frac{5}{5}$ is 5 × 10 = 50

DECISION: If **any** "7" are circled in **Tasks 18, 19** or **20**, CONTINUE the interview.
If **only** "E7" are circled, STOP the interview. If in any doubt, CONTINUE the interview.

Section 9 TARGET: Early Stage 8
Advanced proportional

Do both tasks on this page.

TASK 21

SAY: Petrol costs 210.9 cents a litre.

Your car takes 40 litres.

Will you be able to buy 40 litres if you have $85?

Stage	Strategy observed
7	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Attempts multiplication strategy e.g.,** $40 \times 200 = 8000$
Early 8 or higher	**Uses multiplication strategies e.g.,** - Place value partitioning e.g., $40 \times 200 = 8000$; $40 \times 10 = 400$; $40 \times 0.9 = 36$; $8000 + 400 + 36 = 8436c = \$84.36$ - Rounding dollars and cents e.g., Round 210.9 to 211 **then** $40 \times \$2 = \$80$; $40 \times 10c = \$4$; $40 \times 1c = 40c$; $\$80 + \$4 + 40c = \$84.40$ - Unitising (i.e. cost of fuel per litre if 40 litres costs $85) e.g., $80 \div 40 = \$2$; $5 \div 40 = \frac{1}{8}$; $\frac{1}{8}$ of $1 = 12.5$ cents; so could pay if petrol cost 212.5 cents per litre

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TASK 22

SAY: Mei-ling saved $40 in 16 weeks.

She saved the same amount each week.

How much had she saved after 6 weeks?

Stage	Strategy observed
7	**Cannot solve the problem** or **Uses an earlier numeracy stage** **Uses inappropriate additive strategy** (Stage 5) **e.g.,** $16 - 6 = 10$; $40 - 10 = 30$ **or** $6 + 10 = 16$; $30 + 10 = 40$ **Uses estimation** (Stage 6–7) **e.g.,** $6 \leq \frac{1}{2}$ of 16; $15 \leq \frac{1}{2}$ of 40; so an estimate is 15
Early 8 or higher	**Use a proportional approach e.g.,** - Equivalent fractions or ratios e.g., $\frac{6}{16} = \frac{3}{8}$; $\frac{3}{8} \times 40 = 15$ **or** $40:16 = 20:8 = 10:4 = 5:2$; $(10 + 5):(4 + 2) = 15:6$ so the answer is 15 **or** $40:16 = 20:8 = 15:6$ (using $\frac{3}{4}$ of 20 and $\frac{3}{4}$ of 8) so the answer is 15 **or** $40:16$ (8 as a factor) $= 5:2 = 15:6$ so the answer is 15

Stop the interview