

Global Strategy Stage (GloSS): Form A

The answers to these tasks determine which global strategy a student uses. Description of the stages follows the questions.

Materials Needed.

- 1 20 counters.
- 2 Two A5 sized cards to cover counters.

Questions

Task (1): Count 7 objects.

Actions: Provide the students with access to a pile of counters of the same colour.

Say: Please get me 7 counters.

Decision: If the student could not count 7 items rate the student as Stage 0 on operational strategies. Stop the interview. Otherwise proceed to task (2).

Task (2): Work out $3 + 5$ on materials.

Actions: Place 3 counters in the student's hand. Place 5 counters in the student's other hand.

Say: Please hold out your hands for me. Here are 3 counters. Here are another 5 counters. How many counters have you got altogether?

Decision: If the student is unable to solve $3 + 5$ correctly rate them at stage 1 and stop the interview. If the student solves $3 + 5$ by physically counting all the counters rate her/him at stage 2 and stop the interview. Otherwise proceed to task (3).

Task (3): Find $9 + 7$.

Actions: Place 9 counters under a card then place 7 under another card.

Say: Here are 9 counters, and here are 7 counters. How many counters are there altogether?

Decision: If the student solves the task by a part-whole method (e.g. $9 + 1 + 6 = 10 + 6$) proceed to Task (4). If the student solves the task by "counting on" rate them at stage 4 and stop the interview. If the student could not solve the problem rate them at stage 3 and stop the interview.

Task (4): **a** There are 62 biscuits in the jar. You friends eat 37 of the biscuits. How many biscuits are there then?

b Jody has scored 284 goals at netball this season . She gets another 67 goals. How many goals has she scored altogether?

c Anaru has 312 tropical fish in his aquariums. He sells 198 of them to the pet shop. How many tropical fish does he have now?

Actions: In turn show the cards with the problems.

Say: Read the cards in turn.

Decision: If the student gets 2 or 3 of problems correct, using at least two different part-whole strategies, proceed to task (5) Otherwise rate the student at stage 5 and stop the interview.

- Task (5):** **a** Each barrel weighs 27 kilograms. There are 7 barrels. How much mass is that altogether?
b Bas needs to buy 114 cans of softdrink for the volley ball club party? How many 6-packs should he get?

Actions: Show the student the cards with the problems on them.

Say: Read what is on the cards to the student.

Decision: If the student gets both questions correct, using at least two different part-whole strategies, proceed to Task (6). Otherwise rate the student at stage 6 and stop the interview.

- Task (6):** **a** You can buy 8 avocados for \$6.00
How many avocados will you get for \$15.00?
b Hyud got 48 out of the 60 questions right for his drivers license? What percentage was that?

Actions: Show the cards with the problems on them.

Say: Read what is on the cards to the student.

Decision: If the student gets both questions correct, using at least two different part-whole strategies, rate them at stage 8. Otherwise rate the student at stage 7.

Description of Strategy Stages

| Stage & Behavioural Indicator | |
|--|--|
| 0 | Emergent The student has no reliable strategy to count an unstructured collection of items. |
| 1 | One to One Counting The student has a reliable strategy to count an unstructured collection of items. |
| 2 | Counting from One on Materials The student's most advanced strategy is counting from one on materials to solve addition problems. |
| 3 | Counting from One by Imaging The student's most advanced strategy is counting from one without the use of materials to solve addition problems. |
| 4 | Advanced Counting The student's the most advanced strategy is counting-on, or counting-back to solve addition or subtraction tasks. |
| 5 | Early Additive Part-Whole Thinking The student shows any Part-Whole strategy to solve addition or subtraction problems mentally by reasoning the answer from basic facts and/or place value knowledge. |
| 6 | Advanced Additive Part-Whole Thinking The student is able to use at least two different mental strategies to solve addition or subtraction problems with multi-digit numbers. |
| 7 | Advanced Multiplicative Part-Whole The student is able to use at least two different mental strategies to solve multiplication and division problems with whole numbers. |
| 8 | Advanced Proportional Part-Whole The student uses at least two different strategies to solve problems that involve equivalence with and between fractions, ratios and proportions. |

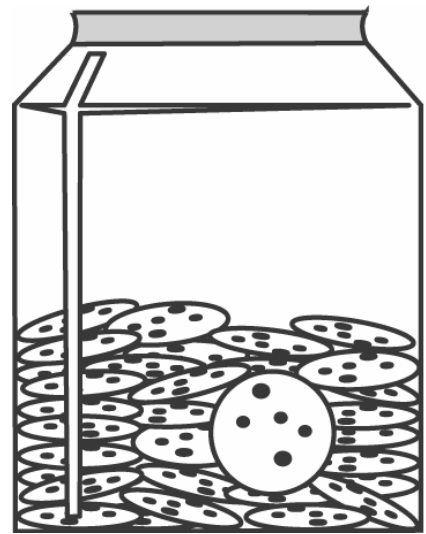
$$3 + 5$$

$$9 + 7$$

There are 62 biscuits in the jar.

Your friends eat 37 of the biscuits.

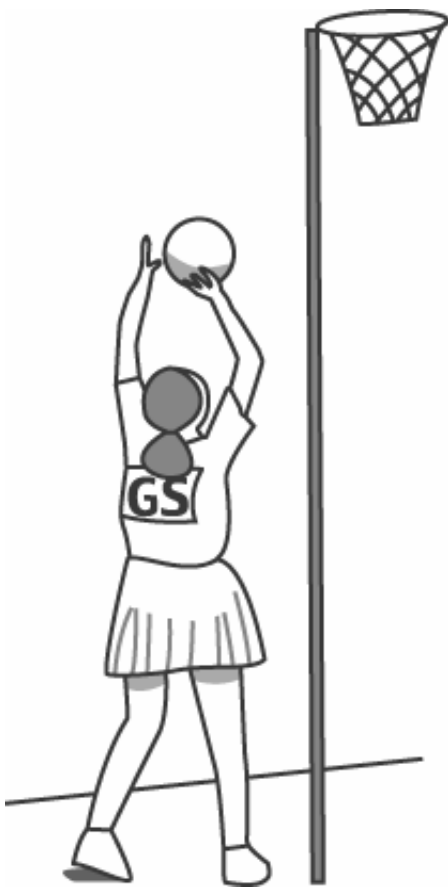
How many biscuits are there then?



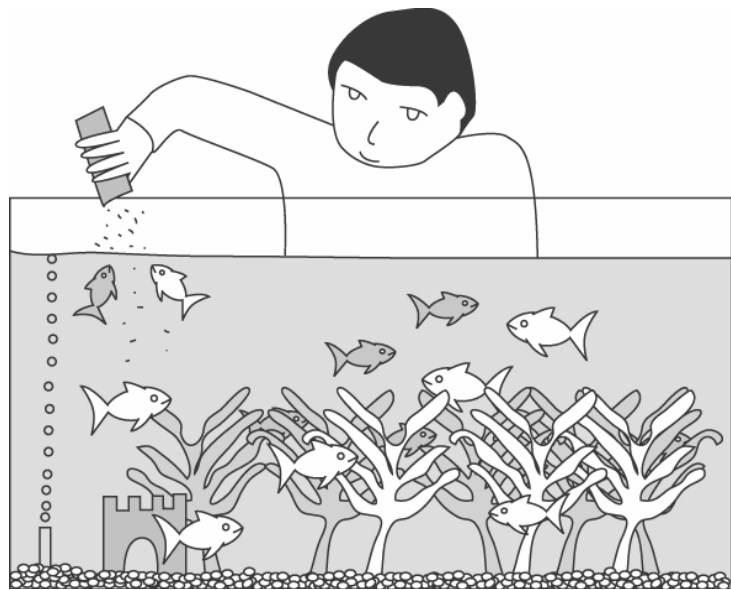
Jody has scored 284 goals at netball this season.

She gets another 67 goals.

How many goals has she scored altogether?

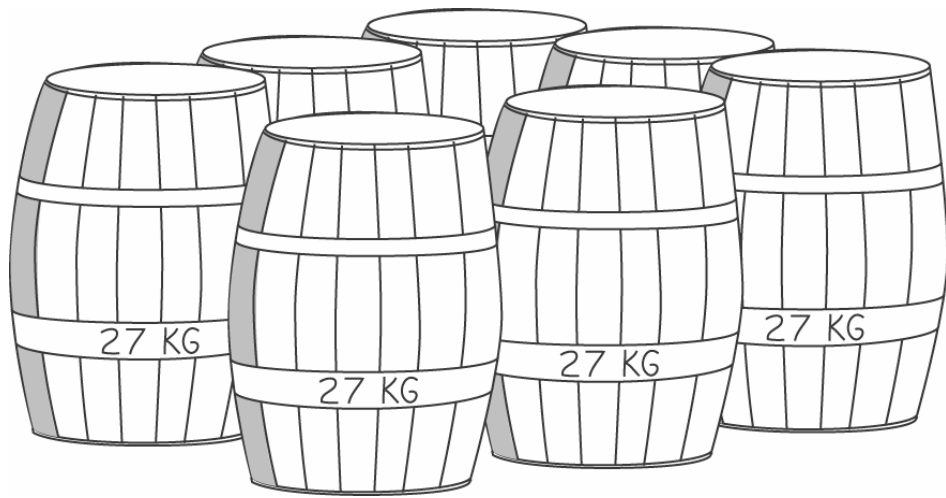


Anaru has 312 tropical fish in his aquariums. He sells 198 of them to the pet shop.

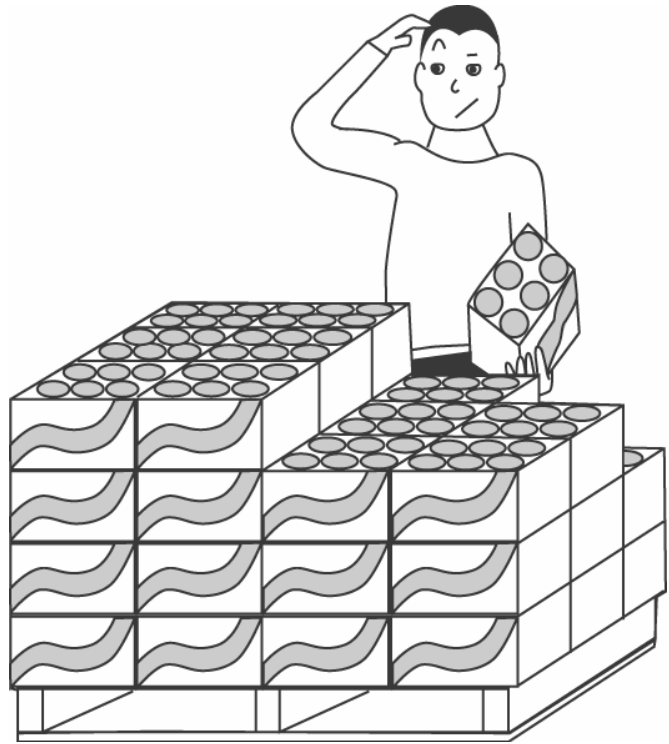


How many tropical fish does he have now?

Each barrel weighs 27 kilograms.
There are 7 barrels.
How much mass is that altogether?



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How many
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Hyud got 48 questions right out of the 60 for his driver license?

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