UNIT 3 METHODS 2014

SAC 1 Part A comments

General

-some students bound reference did not comply with VCAA rules

-writing and numbers must be legible

-preferable not to use backslashes when writing fractions

-don’t rub or cross work out if nothing to replace it

Specific comments related to questions

-in question 1(b) , students must use correct language to describe the transformations

(fairly lenient with this in first Sac)

 Eg dilation of factor a half FROM the y-axis

 Have to specifically state a TRANSLATION of….

* In question 1(c) ‘expanding’ $(x-3)^{2}$ was fairly commonly given as $x^{2}+9$ and they were only asked for the rule, so domain not required. Going on and doing this incorrectly (further engagement) could mean losing a mark. Also in this question, many students had trouble going from $-(x-3)$=$\sqrt{2y+4}$ to the next line, which involved squaring both sides. Frequently the negative sign remained in front of the bracket after squaring.

-in Question 1(d) , some students did not use f(x)=x to start the question

-in question 2(b) , writing as a hybrid function implies giving the respective domain for each part. In this case the question also asked for the domain. This may have confused some students. In marking this question, 1 mark was given for each part of the rule found correctly and 1 for the domain (given with each part), or instead 1 mark given for the domain written as $x\geq -3$ or equivalent.

-in question 3(b) consequential marks given if 3(a) incorrect. A student who was unable to do part(a) could have written an answer down in the correct form and used that in part(b). ‘Hence’ in part (b) implies use result from part(a). Normally no marks given in part(b) if this is not done. In this case because it did not substantially alter the “approach” to the question, students were not penalised.

-also in question 3(b), as the question did not just say “find the rule”, the implication would be that the function should be specified completely; i.e. written in function notation, including the domain.

In this Sac, students were not penalised if they only gave the rule in part 3(b).

**SAC 1 Part B**

**Multiple Choice**

Students need to shade more carefully

When a question wasn’t answered I did check the question booklet – in all cases students had nothing recorded on the book – this wouldn’t normally happen anyway.

Question 3 was an issue despite the work done at yr 11 – perhaps there are some students that still can’t use sliders efficiently

Question 9 was frequently not done well

**Short Answer**

Giving a decimal approximation when an exact value was required was a huge issue. All students lost one mark the first time they did it (usually in question 1) but were not penalised again after that. (28.3 recurring 3 is acceptable)

Ask students to ask themselves – is your answer sensible – clearly many of them have no idea how long it takes to run/swim

Question 1 show that as long as they started with factorised form they got two marks. I may have been too lenient here.

Question 1 part e and f – if students were reading the point incorrectly I gave them 1 out of the two marks (same at question 2 parts b and c

There was atype at e but it didn’t cause a problem – again I got the impression students were not using CAS efficiently – we need to encourage them to look at the transformations on CAS if they do that they would have fixed 2 x f(x) and changed it to the correct transformation