

Activity 5 Proof Answers and Comments

1. By putting $u = \log_4 r$, show that $\log_4 r = \frac{1}{2} \log_2 r$

A is acceptable – would delegates include anything else?

B is not acceptable as it seems to be assuming that which it is trying to prove.

C is incorrect (line 2 is incorrect)

D is acceptable as it uses the formula for change of base given in the Formula Book.

E is acceptable – IF A CONCLUSION IS WRITTEN

2. Prove that $\frac{1+\sin 2x}{\cos 2x} = \frac{1+\tan x}{1-\tan x}$

A is acceptable – it uses given formulae or formulae the student is expected to know (without proof)

B is acceptable – it uses given formulae or formulae the student is expected to know (without proof)

C is acceptable – it uses given formulae or formulae the student is expected to know (without proof). (Starting on the RHS is fine)

D is acceptable although the student should STATE A CONCLUSION. There is also the issue of whether each step in the process here is reversible, which the student should be aware of.